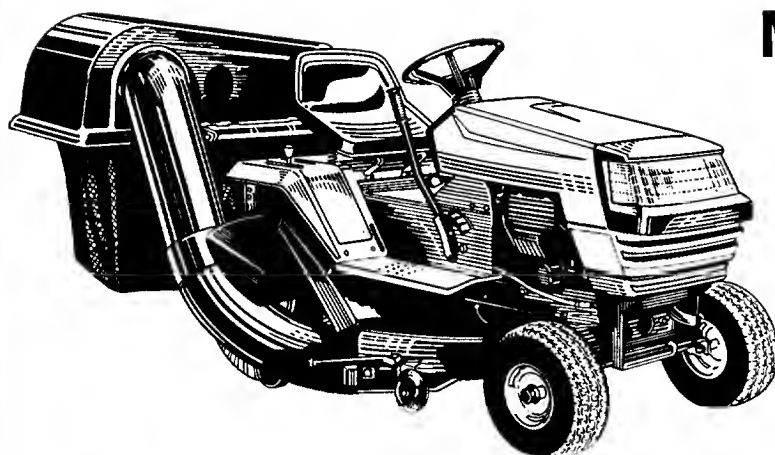


# OWNER'S GUIDE

ASSEMBLY • OPERATION • MAINTENANCE • PARTS



(Model 800H Shown with Optional Grass Collector)

## 18 H.P. LAWN TRACTORS Model Numbers

131-800H000  
131-802H000  
131-803H000  
131-804H000  
131-806H000  
131-808H000  
131-809H000

**Important: Read Safety Rules and Instructions Carefully**



**WARNING:** This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 360900, Cleveland, Ohio 44136.

# IMPORTANT

## RULES FOR SAFE OPERATION



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR UNIT. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL—



HEED ITS WARNING.



### DANGER:

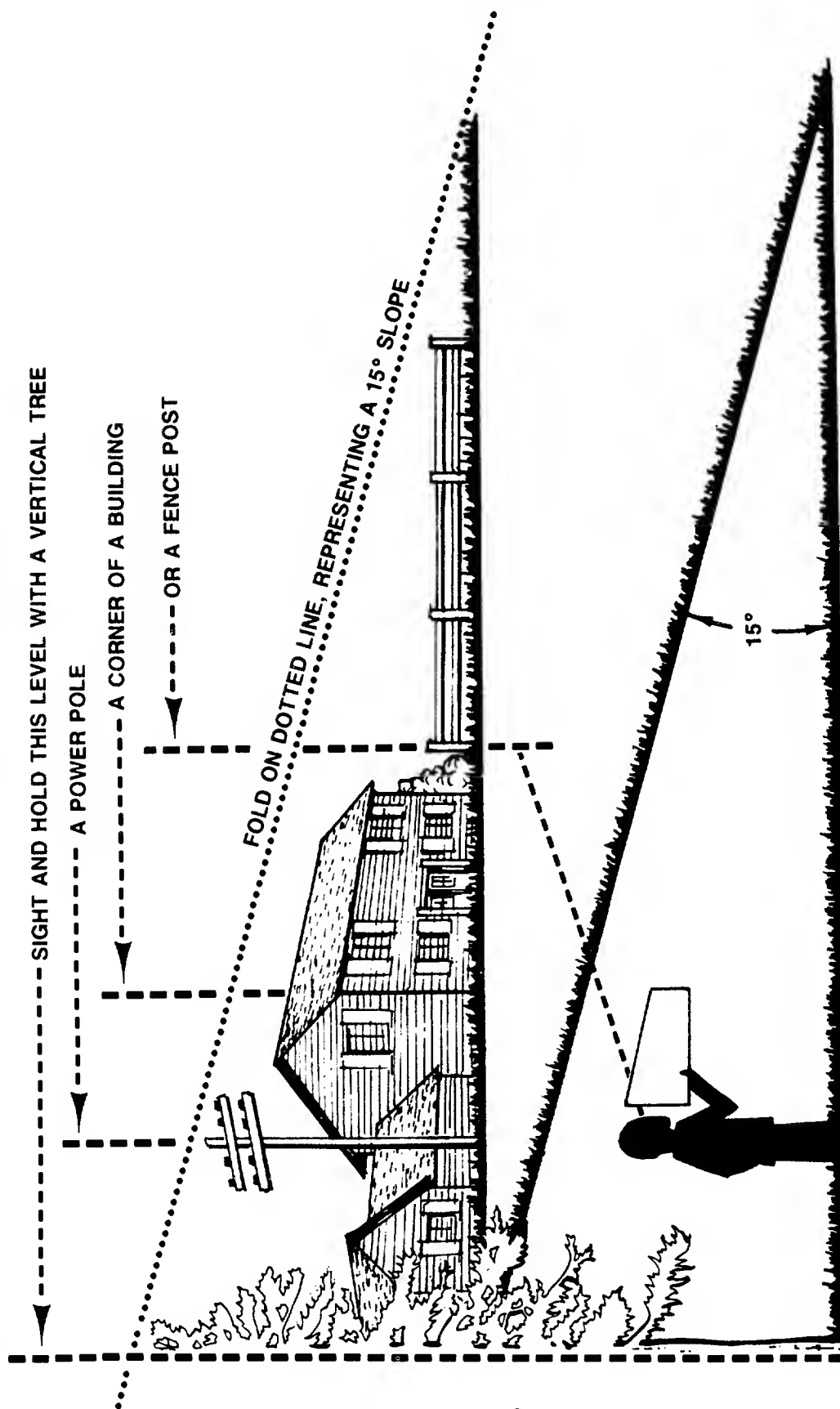
Your unit was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.

1. READ THIS OWNER'S MANUAL carefully in its entirety before attempting to assemble or operate this unit. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. This unit is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.
3. Know the controls and how to stop the machine quickly.
4. Do not allow children under 14 years old to operate vehicle. Children 14 years and over should only operate unit under close parental supervision. Do not allow anyone to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
5. Wear sturdy, rough-soled work shoes and close-fitting socks and shirts. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals, or sneakers.
6. To prevent injury, do not carry passengers or give rides. Keep children, pets and bystanders out of the area while mowing. Only the operator should ride on the unit and only ride in the seat.
7. Check overhead clearance carefully before driving under power lines, guy wires, bridges or low hanging tree branches, before entering or leaving buildings, or in any other situation where the operator may be struck or pulled from the unit, which could result in serious injury.
8. To maintain control of the unit and reduce the possibility of upset or collision, operate the tractor smoothly. Avoid erratic operation and excessive speed.
9. Thoroughly inspect the area to be mowed. Remove all stones, sticks, wire, bones and other foreign objects. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, a small object may have been overlooked and could be accidentally thrown by the mower in any direction and cause injury to you or a bystander. Plan your mowing pattern to avoid discharge of material toward roads, sidewalks, bystanders, pets and the like.
10. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair, to protect eyes from foreign objects that may be thrown from the machine in any direction.
11. Stop the blade(s) when crossing gravel drives, walks or roads.
12. Disengage all attachment clutches, thoroughly depress the brake pedal, and shift into neutral before attempting to start engine.
13. Before leaving the operator's position, disengage blade(s), place shift lever in neutral, engage parking brake, shut engine off and remove key.
14. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times as the rotating blade(s) can cause injury.
15. Disengage power to attachment(s) and stop engine before making any repairs or adjustments. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
16. Before attempting to unclog the mower or discharge chute, stop the engine. The mower blade(s) may continue to rotate for a few seconds after the engine is shut off. Therefore, be sure the blade(s) have stopped completely. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
17. Disengage power to attachment(s) when transporting or not in use.
18. For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.
19. Do not stop or start suddenly when going uphill or downhill. Mow up and down face of steep slopes; never across the face. Use extreme caution if it is necessary to drive the tractor up an incline or back the tractor down an incline because the front of the tractor could lift and rapidly flip over backward which could cause serious injury.
20. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Always keep the tractor in low gear when going down steep hills to take advantage of engine braking action. Choose a low enough gear so that you will not have to stop or shift while on the slope.
21. Stay alert for holes in terrain and other hidden hazards which may cause the unit to tip over.
22. Use care when pulling loads or using heavy equipment.
  - A. Use only approved drawbar hitch points.
  - B. Limit loads to those you can safely control.
  - C. Do not turn sharply. Use care when backing.
  - D. Use counterweight(s) or wheel weights when suggested in owner's manual.
23. Watch out for traffic when crossing or near roadways.
24. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
25. Handle gasoline with care. It is highly flammable.
  - A. Extinguish cigarettes, cigars, pipes and all other sources of ignition.
  - B. Use approved gasoline container.
  - C. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Allow to cool at least 2 minutes before refilling. Wipe up spilled gasoline. Always use original type vented cap.
  - D. Open doors if engine is run in garage. Exhaust fumes are dangerous. Do not run engine indoors.
26. Never store the machine with fuel in the fuel tank inside a building where fumes may reach an open flame or spark, such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
27. To reduce fire hazard, keep engine and cutting deck free of grass, leaves or excessive grease or oil.
28. Keep the vehicle and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in operator's manual. Do not operate this unit unless the chute deflector, guards, and safety interlock system are installed and functioning properly.
29. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
30. The vehicle and attachments should be stopped and inspected for damage after striking a foreign object. The damage should be repaired before restarting and operating the equipment.
31. Do not change the engine governor settings or overspeed the engine.

USE THIS SHEET AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.

# SLOPE GAUGE

(Keep this sheet in a safe place for future reference.)



Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2½ feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

Operate RIDING mowers up and down slopes, never across the face of slopes.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

# CONTENTS OF HARDWARE PACK

Remove this sheet from your owner's manual and lay the hardware on the illustration for identification purposes. Refer to the separate deck manual for any information concerning the deck. After assembly, keep the Slope Gauge which is on the reverse side of this sheet for future use.

(Hardware pack may contain extra items which are not used on your unit.  
Part numbers are shown in parentheses.)

### A STEERING WHEEL INSTALLATION

Hex Lock Nut  
5/16-24 Thread  
(712-0237)

Cupped Washer  
5/16" I.D.  
(736-0242)

Steering Bellows

Steering Wheel Cap  
(731-0220)

### B INSTALLING THE BATTERY (Black Plastic Battery Cover Is Not Shown)

Plastic Wing Nuts  
(712-0113)

Battery Hold-Down Rods  
(711-0222)

Push Nuts  
(726-0271)

Mounting Clamp  
(726-0273)

Self-Tapping Screw 1/2" Long  
(710-0599)

### C ATTACHING THE DECK LINKS

Eyebolts  
(711-0817)  
(Not Shown to Scale)

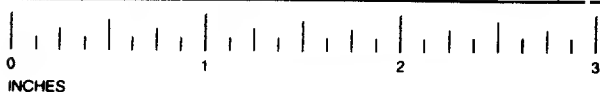
Hex Nuts  
1/2-13 Thread  
(712-0206)

### D FINAL ASSEMBLY

Mounting Clips For Optional Hub Caps  
(727-0425A)  
Quantity—20

### E IGNITION KEYS

Not Shown—May be Attached to Tractor



## RULES FOR SAFE OPERATION (continued from page 2)

32. When using the vehicle with mower, proceed as follows:
  - A. Mow only in daylight or in good artificial light.
  - B. Never make a cutting height adjustment while engine is running if operator must dismount to do so.
  - C. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher.
  - D. Check blade mounting bolts for proper tightness at frequent intervals. Also, check blades for wear or damage (e.g. bent, cracked). Replace with blade which meets original equipment specifications.
33. Check grass catcher bags frequently for wear or deterioration. For safety protection, replace only with new bag meeting original equipment specifications.
34. Look behind to make sure the area is clear before placing the transmission in reverse and continue looking behind while backing up. Disengage blades before shifting into reverse and backing up.
35. This unit should not be driven up a ramp onto a trailer or truck under power, because the unit could tip over, causing serious personal injury. The unit must be pushed manually to load properly.
36. Check brake operation frequently. Adjust and service according to brake adjustment instructions in this manual.
37. Muffler, engine, and belt guards become hot during operation and can cause a burn. Allow to cool down before touching.

## ASSEMBLY INSTRUCTIONS

This owner's manual covers various models of tractors. The units illustrated may vary slightly from your unit. Follow the instructions which pertain to your unit.

**IMPORTANT:** This unit is shipped **WITHOUT GASOLINE or OIL**; however, a small amount of oil may be present from the factory. Do not overfill. After assembly, service engine with gasoline and oil as instructed in the separate engine manual.

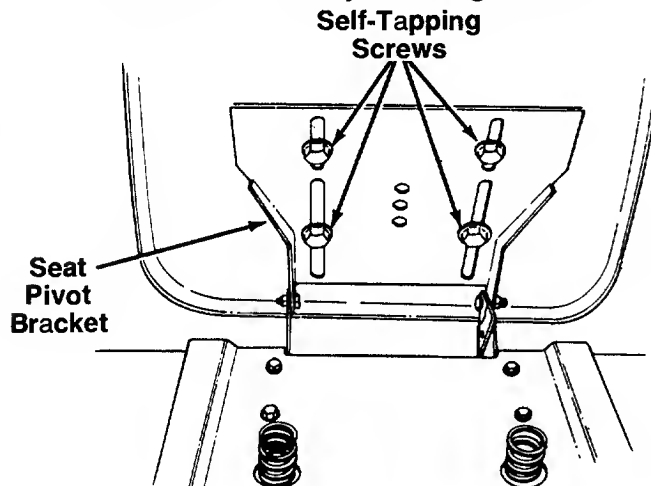


FIGURE 1.

**NOTE:** Reference to right or left hand side of the unit is observed from the driver's seat, facing forward. Refer to the separate deck manual for all information regarding the deck.

### UNPACKING

1. Remove the carton from the tractor as follows. Open the top flaps and remove all carton inserts. Carefully cut on dotted line all the way around the carton. Lift the carton off the tractor. Remove the deck from beneath the tractor. Roll the tractor off the skid. Make certain all parts and literature have been removed from the carton before the carton is discarded.
2. Remove page four from this manual and lay the contents of the hardware pack according to the illustration for identification.

### SEAT ASSEMBLY

Remove the four hex self-tapping screws from the bottom of the seat. Place the seat in position against the seat pivot bracket, lining up the slotted holes in the pivot bracket with the holes in the seat. Select desired position for the seat, and secure with hex self-tapping screws. See figure 1.

### BATTERY INFORMATION



#### WARNING

- A. Battery acid must be handled with great care as contact with it can burn and blister the skin. It is also advisable to wear protective clothing (goggles, rubber gloves and apron) when working with it.\*
  - B. Should battery acid accidentally splatter into the eyes or onto the face, rinse the affected area immediately with clean, cold water. If there is any further discomfort, seek prompt medical attention.
  - C. If acid spills on clothing, first dilute it with clean water, then neutralize with a solution of ammonia/water or baking soda/water.
  - D. Since battery acid is corrosive, do not pour it into any sink or drain. Before discarding empty electrolyte containers, rinse them with a neutralizing solution.
  - E. **NEVER** connect or disconnect charger clips to battery while charger is turned on as it can cause sparks.
  - F. Keep all lighted materials (cigarettes, matches, lighters) away from the battery as the hydrogen gas generated during charging can be combustible.
  - G. As a further precaution, only charge the battery in a well-ventilated area.
- \*Always shield eyes, protect skin and clothing when working near batteries.**

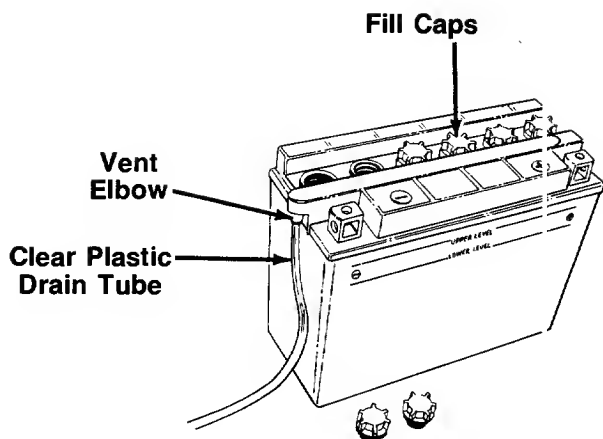


FIGURE 2.

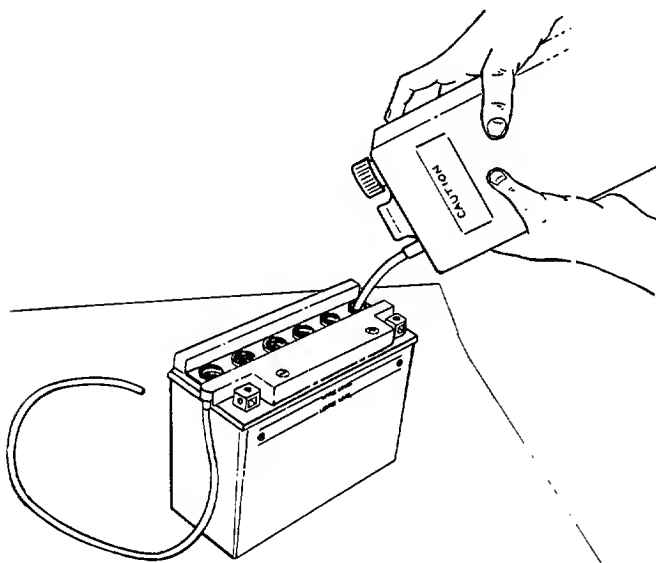


FIGURE 3.

## ACTIVATING THE BATTERY

Do not activate battery (fill with battery acid) until battery is actually placed in service. Be certain to read previous warnings before activating the battery.

1. Open the battery pack. Be careful not to puncture the box. It contains the battery with a long plastic tube attached, battery fluid (acid) in a plastic container, one short plastic tube and one hardware pack (two hex bolts and nuts).
2. Place the battery on a table or workbench. Make certain the long plastic drain tube is in place on the vent elbow.
3. Remove the six fill caps from the top of the battery. See figure 2.
4. Place the battery fluid container on the table or workbench. Carefully cut off tip of the spout and attach the short plastic tube provided. Do not squeeze the container when cutting tip.
5. Fill each battery cell slowly and carefully to the UPPER LEVEL line marked on battery. See figure 3. Use caution as the acid level will rise rapidly after the bottom of the cell is filled.
6. Allow battery to stand for 30 minutes with the fill caps removed, while the plates absorb acid.
7. If acid level has fallen after the 30 minute standing period, refill each cell with battery acid to the UPPER LEVEL line on battery. Replace the fill caps.
8. Before discarding the empty container, neutralize any residue with baking soda and rinse container with water. Puncture container several times before discarding.
9. Charge the battery after the 30 minute standing period. SLOW CHARGE THE BATTERY (DO NOT FAST CHARGE) at a maximum bench rate of 2 amperes until the specific gravity reading is 1.265. Charge for a minimum of 3 hours and a maximum of 5 hours.



### DANGER

Battery contains sulfuric acid. Refer to warning on page 5. Antidote: EXTERNAL—Flush with water. INTERNAL—Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Seek prompt medical attention. EYES: Flush with cool water for at least 15 minutes, then seek immediate medical attention.

Since batteries produce explosive gases, keep all lighted materials (cigarettes, lighters, matches, etc.) away. Be sure to charge battery only in well-ventilated areas.

KEEP BATTERIES  
OUT OF THE REACH OF CHILDREN!

**NOTE:** This engine is equipped with an alternator. The current for the battery charger alternator is unregulated. During normal operation, it is only necessary to charge the battery:

1. When it is activated for the first time.
2. Before winter storage.
3. Before using the lawn tractor after winter storage.

**NOTE:** After battery has been charged, add only distilled water. Do not add acid.

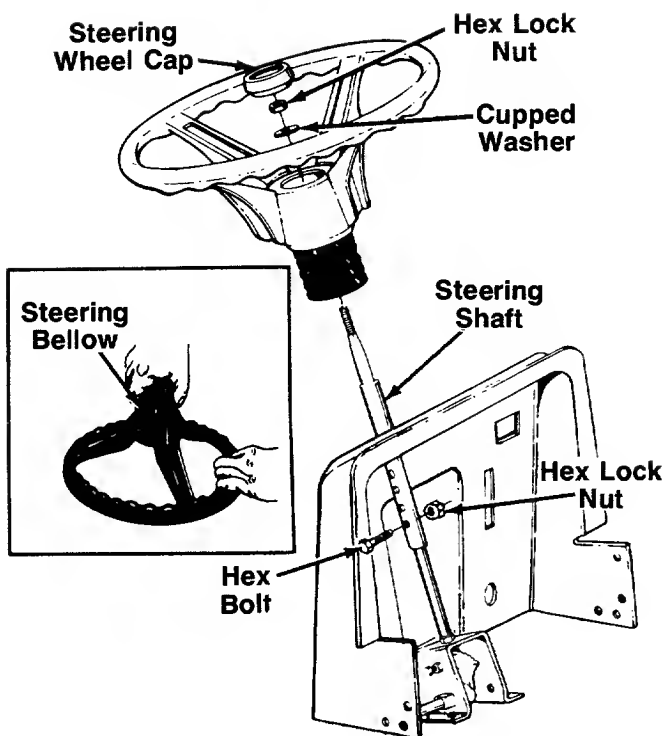
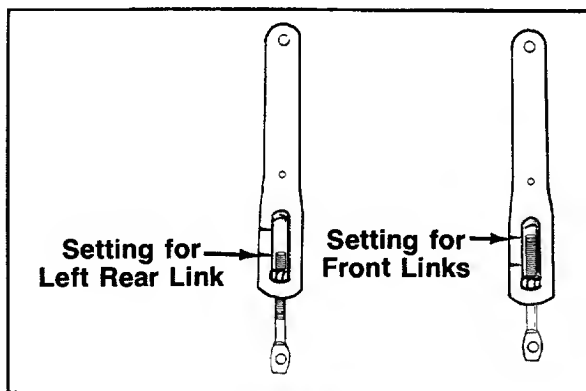


FIGURE 4.

### STEERING WHEEL INSTALLATION (Hardware A)

1. There are four height positions for the steering wheel. For shipping purposes, the steering shaft is assembled in the lowest position. Lift the hood of the tractor. Remove the hex bolt and hex lock nut on the steering shaft. Raise the shaft to desired position and secure with hex bolt and hex lock nut. See figure 4.
2. Attach one end of the plastic steering bellow to the steering wheel as shown in figure 4, inset.
3. Position the front wheels of the tractor so they are pointing straight forward.
4. Place the steering wheel (with steering bellow attached) over the steering shaft extending through the dash, positioning steering wheel as desired.
5. Place the washer with the cupped side down over the steering shaft. Secure with 5/16" hex lock nut. See figure 4.
6. Place the steering wheel cap over the center of the steering wheel so the logo can be read from the operator's position, and press on by hand.



### ATTACHING THE DECK LINKS (Hardware B)

The three adjustable deck links have been shipped unassembled. Attach as follows.

1. Start 1/2" hex nuts on eyebolts provided. Insert the hex nuts and eyebolts into the adjustable lift links as shown in figure 5.
2. Thread eyebolts into the lift links and hex nuts. The left rear link should be adjusted so the eyebolt is to the lower mark as shown. The two front links should be adjusted to the higher mark.

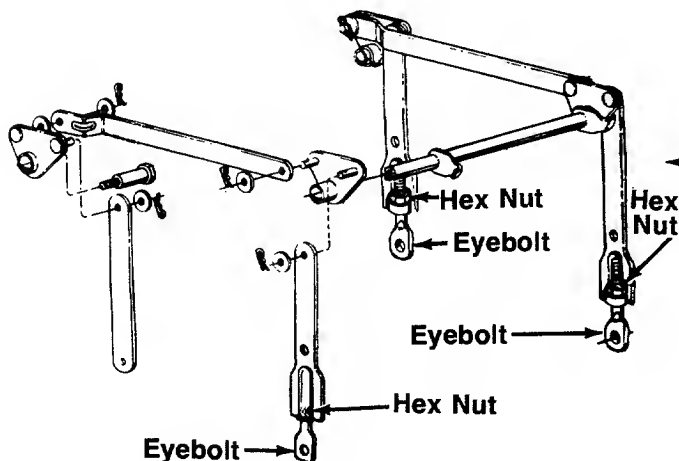


FIGURE 5.

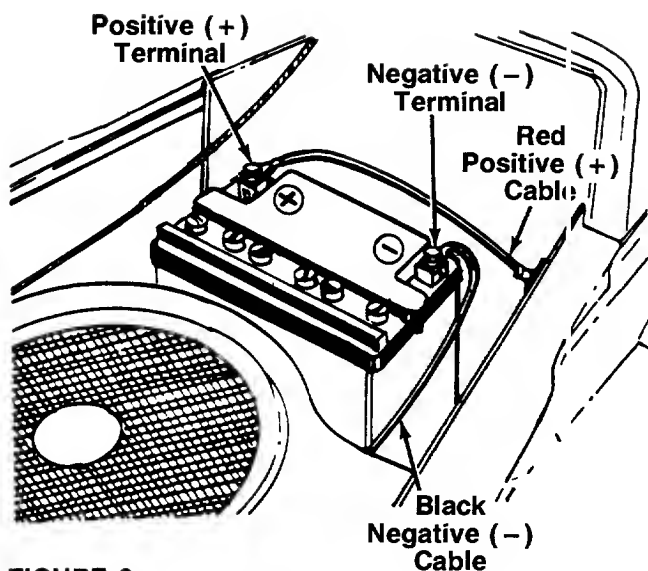


FIGURE 6.

### INSTALLING THE BATTERY (Hardware C)

1. Place the battery on the battery plate with the terminals toward the rear of the tractor.
2. Attach the positive cable (heavy red wire) to the positive battery terminal (+) with hex bolt and hex nut provided with battery. See figure 6.

**NOTE:** The positive battery terminal is marked Pos. (+). The negative battery terminal is marked Neg. (-).

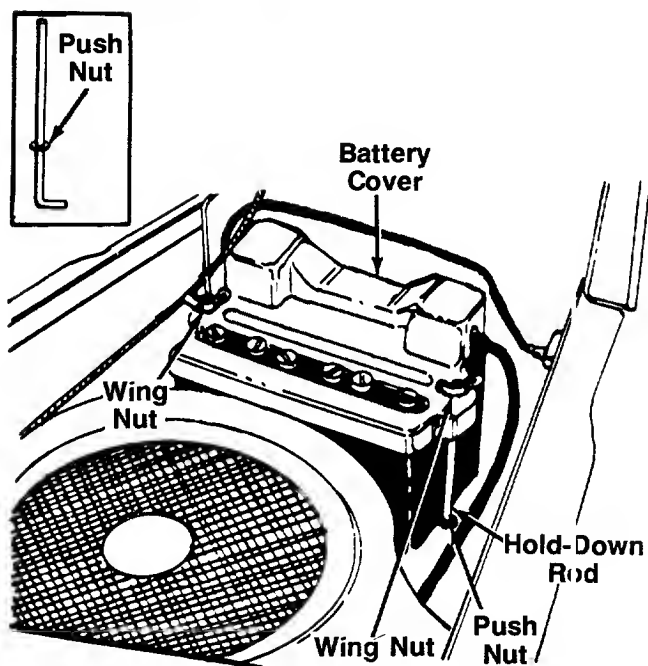


FIGURE 7.

3. Attach the negative cable (heavy black wire) to the negative battery terminal (-) with the other hex bolt and hex nut.
4. Attach one push nut to each battery hold-down rod as follows. Thread the push nut, flat side down, over the threads on hold-down rod, then slide it further down the rod. See figure 7, inset.
5. Hook one hold-down rod into the hole in battery plate beside the battery as shown in figure 7. Slide the push nut down the rod, against the battery plate. Place the black plastic battery cover in position over the hold-down rod. Secure with wing nut.
6. Attach other hold-down rod to the other side of battery cover in the same manner.

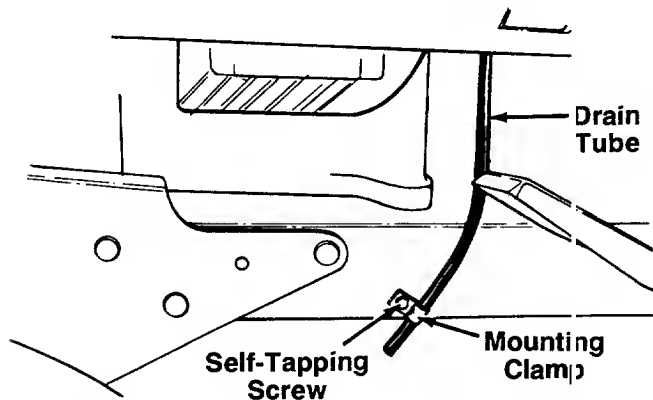


FIGURE 8.

7. Route the battery drain tube over to the **left** side of the tractor. Slip the end of the drain tube into the mounting clamp provided in hardware pack. Secure the mounting clamp to the tractor frame using the self-tapping screw as shown in figure 8.

**NOTE:** The vented battery allows any gases or liquid from the battery to be drained onto the ground.

8. Trim end of drain tube if more than 1 inch extends below the frame.



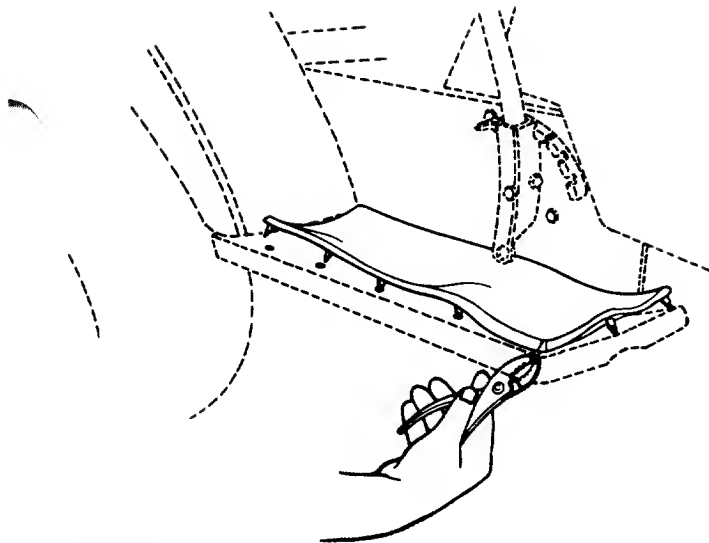


FIGURE 9.

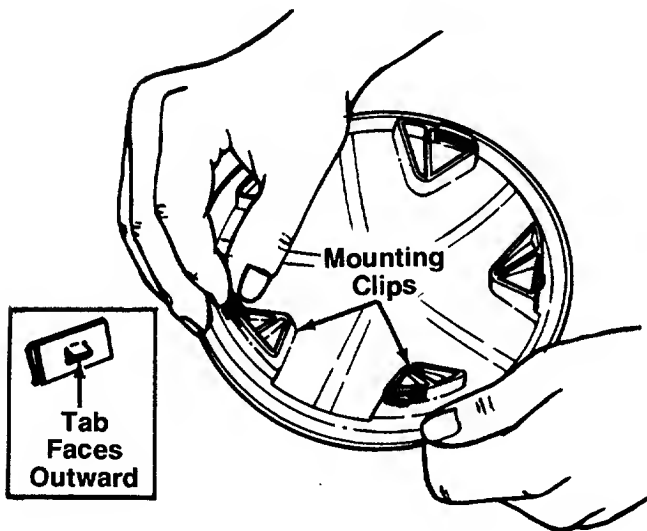


FIGURE 10.

## FINAL ASSEMBLY

1. **Optional foot pads:** If not already assembled, attach foot pads as follows. Position one foot pad on top of the running board on the tractor, lining up the studs on the bottom of pad with the holes in the running board. Pull the studs through the holes in the running board using a pair of pliers. Repeat on other side of tractor. See figure 9.

2. If your tractor is equipped with **optional hub caps**, attach the four hub caps as follows.

- a. Slide five mounting clips on each hub cap as shown in figure 10, with the tabs on the mounting clips facing outward.

- b. Line up hub caps with wheel rims. Push hub caps on by hand.

3. Make certain all nuts and bolts are tightened securely.

## TIRE PRESSURE

The tires on your unit may be over-inflated for shipping purposes. Reduce the tire pressure before operating the unit. Recommended operating tire pressure is approximately 12 p.s.i. (check sidewall of tire for tire manufacturer's recommended pressure).



**WARNING:** Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.

## ATTACHING THE CUTTING DECK

If your tractor is equipped with a cutting deck, attach as instructed in the separate deck manual packed with your unit.

# CONTROLS

## IGNITION SWITCH

The ignition switch is located on the dashboard. Turn the key to the START position to start the engine. When the engine is running, leave the key in the ON position. To stop the engine, turn the key to the OFF position. See figure 11.



**WARNING:** Remove the key from the tractor when the tractor is not in use to prevent accidental starting.

## THROTTLE CONTROL

The throttle control is located on the left side of the

dashboard and is used to regulate the engine speed. See figure 11. The engine should be operated from  $\frac{3}{4}$  to full throttle (FAST) when operating any equipment that uses the tractor engine as a source of power such as the mowing deck, snow thrower or rotary tiller.

## CHOKE CONTROL

The choke control is located on the right side of the dashboard and is operated manually. Details for the choke operation are covered in the separate engine manual packed with your unit. See figure 11.

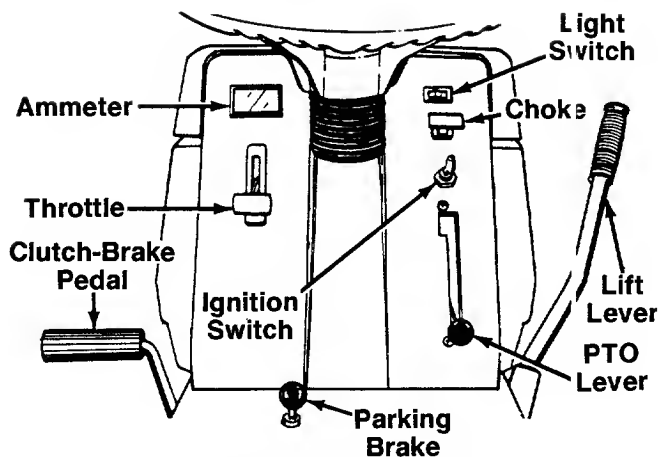


FIGURE 11A.—Models 803 and 808 Shown

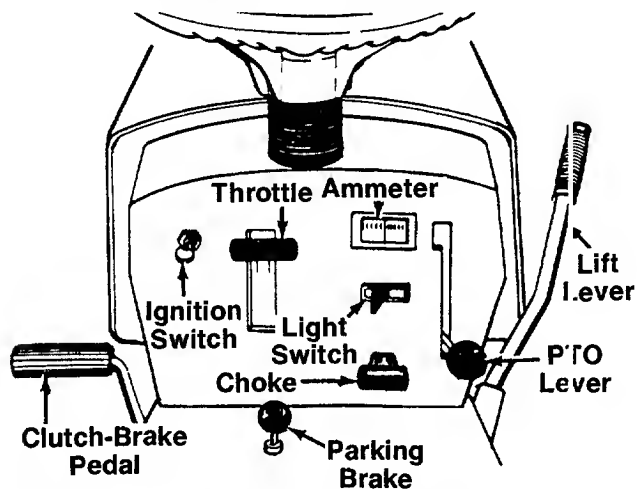


FIGURE 11B.—Models 802 and 807 Shown

### LIGHT SWITCH

The head lamps are operated by pushing the light switch located on the dashboard. The head lamps will only operate when the engine is running. See figure 11.

### AMMETER

The ammeter registers the rate of battery charge or discharge. The ammeter will register on the discharging side when starting the engine. It should register on the opposite side (charging) when the engine is running in the fast position until the battery is completely charged. With a fully charged battery or with the engine idling, the ammeter will not show a charge. See figure 11.

### CLUTCH-BRAKE PEDAL

The clutch-brake pedal is located on the left side of the tractor. See figure 11. Depressing the clutch-brake pedal partway disengages the clutch. Pressing the pedal all the way down disengages the clutch and engages the disc brake.

**NOTE:** The clutch-brake pedal must be depressed to start the engine.

### SHIFT LEVER

The shift lever is located on the right fender and has three positions, FORWARD, NEUTRAL and REVERSE. See figure 12. The clutch-brake pedal must be depressed and the lawn tractor must not be moving when shifting gears. Do not force the shift lever. Release the clutch-brake pedal slightly to line up the shifting collar in the transmission. Then try to shift gears.

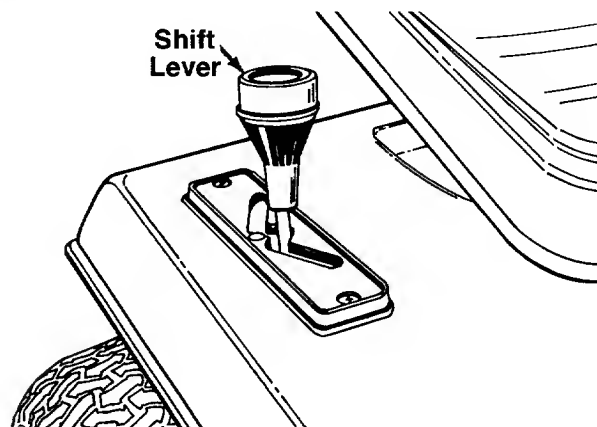


FIGURE 12.  
PARKING BRAKE

To set the parking brake, depress the clutch-brake pedal and pull up the parking brake knob. It will stay in the raised position. To release the parking brake, depress and release the clutch-brake pedal. See figure 11.

**NOTE:** The parking brake must be set if the operator leaves the seat with the engine running.

### SPEED CONTROL LEVER

The speed control lever is located on the left fender. It allows you to regulate the ground speed of the lawn tractor. See figure 13. To select the ground speed, depress clutch pedal. Push speed control lever outward and move backward to slow lawn tractor, move forward to increase speed. When desired speed has been obtained, release lever in that position. Whenever clutch is engaged, unit will automatically go to the pre-set speed.

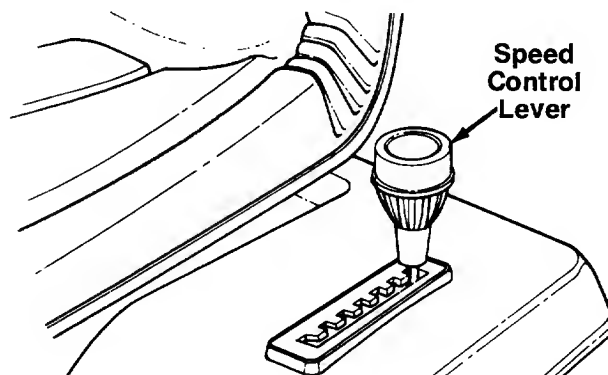


FIGURE 13.

## LIFT LEVER

The five position lift lever is used to change the operating position of the attachments. To operate, pull the lever towards you. To release, move the lever to the right and then forward. See figure 11.

## POWER TAKE-OFF (PTO) LEVER

The PTO lever is located on the right side of the

dashboard. The PTO lever is used to engage and disengage the power to the attachments. To engage the PTO, lift the lever slowly and lock it into the notch. See figure 11.

**NOTE:** The PTO lever **must** be in the disengaged position (down) when starting the engine when shifting into reverse and if the operator leaves the seat.

# OPERATION

## CAUTION

- READ OPERATOR'S MANUAL(S) • NEVER CARRY CHILDREN
- KNOW LOCATION AND FUNCTION OF ALL CONTROLS
- KEEP SAFETY DEVICES (GUARDS, SHIELDS AND SWITCHES) IN PLACE AND WORKING
- REMOVE OBJECTS THAT COULD BE THROWN BY BLADE(S)
- DO NOT OPERATE THE UNIT WHEN CHILDREN AND OTHERS ARE AROUND
- ALWAYS LOOK BEHIND THE UNIT BEFORE BACKING UP
- DO NOT OPERATE THE UNIT WHERE IT COULD SLIP OR TIP
- IF THE UNIT STOPS GOING UPHILL, STOP BLADE(S) AND BACK SLOWLY DOWNHILL
- BE SURE BLADE(S) AND ENGINE ARE STOPPED BEFORE PLACING HANDS OR FEET NEAR BLADE(S)
- BEFORE LEAVING OPERATOR'S POSITION, DISENGAGE THE BLADE(S), PLACE THE SHIFT LEVER IN NEUTRAL, ENGAGE THE PARKING BRAKE, SHUT ENGINE OFF AND REMOVE THE KEY.

## GAS AND OIL FILL-UP

Service the engine with gasoline and oil as instructed in the separate engine manual packed with your tractor. Read instructions carefully.

The gasoline tank is located under the seat. The filler neck is behind the seat. Do not overfill.

**NOTE:** Your tractor is shipped without oil; however, a small amount of oil may be present from the factory. Do not overfill.



**WARNING:** Never fill fuel tank indoors, with engine running or while engine is hot.

## STARTING THE ENGINE

**IMPORTANT:** This unit is equipped with a **safety interlock system** for your protection. The purpose of the safety interlock system is to prevent the engine from cranking or starting unless the clutch-brake pedal is depressed and the PTO lever is in the disengaged position. In addition, the PTO lever must be in the disengaged position when the unit is put into reverse or the engine will shut off. If the operator leaves the seat with the PTO lever engaged and/or without setting the parking brake, the engine will shut off.



**WARNING:** Do not operate the tractor if the interlock system is malfunctioning because it is a safety device, designed for protection.

1. Place the PTO lever in the disengaged (down) position.
2. Depress the clutch-brake pedal and set the parking brake.
3. Place the shift lever in the NEUTRAL position.
4. Set the throttle control in the FAST position.
5. Pull out the choke control (a warm engine may not require choking).
6. Turn the ignition key to the right to the START position. After the engine starts, release the key. It will return to the ON position.
7. Slowly push in the choke as the engine warms up.

## STOPPING THE ENGINE

Turn the ignition key to the left to the OFF position. Remove the key to prevent accidental starting.

**IMPORTANT:** If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the unit for any damage, and repair the damage before restarting and operating the mower.

**NOTE:** If any problems are encountered, refer to the Trouble Shooting Chart on page 18.

## OPERATING THE TRACTOR

1. Start the engine as instructed previously.
2. Move throttle control to  $\frac{3}{4}$  or full throttle to prevent strain on the engine and to operate attachments.
3. Place the shift lever in FORWARD or REVERSE position. Place the speed control lever in desired position. Use first speed position when operating the tractor for the first time.



**WARNING:** Look to the rear before backing up.

4. Release the parking brake by depressing the clutch-brake pedal. Release clutch-brake pedal slowly to put unit into motion.
5. The tractor is brought to a stop by depressing the clutch-brake pedal.
6. The cutting blades (or other attachment) may be engaged while the tractor is moving or standing still. **DO NOT** engage the cutting blades abruptly as the sudden belt tension on the pulley may cause the engine to stall.



**WARNING:** Keep feet and hands away from the discharge opening, the blades or any part of the deck.

**NOTE:** When operating the unit initially, there will be little difference between the highest two speeds until after the belts have seated themselves into the pulleys during the break-in period. Be certain to change oil in the crankcase after the first 5 hours of operation.

Be sure that the lawn is clear of stones, sticks, wire, or other objects which could damage tractor or engine. For best results and to insure more even grass distribution, do not mow when lawn is excessively wet.



**WARNING:** Before leaving the operator's position for any reason, disengage the blades, place the shift lever in neutral, engage the parking brake, shut engine off and remove the key.

When stopping the unit to empty a grass bag, etc., follow the instructions above. This procedure will also eliminate "browning" the grass, which is caused by hot exhaust gases from a running engine.

If unit stalls with speed control in sixth or seventh speed, or if unit will not operate with speed control lever in first or second speed position, proceed as follows.

1. Place shift lever in NEUTRAL.
2. Restart engine.
3. Place speed control lever in seventh speed position.
4. Release clutch-brake pedal fully.
5. Depress clutch-brake pedal.
6. Place speed control lever in desired position.
7. Place shift lever in either FORWARD or REVERSE, and follow normal operating procedures.

GRASS COLLECTOR Model 190-083 is available as optional equipment for tractors with 46" mowing decks.



**WARNING:** The mower should not be operated without the entire grass catcher or chute deflector in place.

**NOTE:** Under normal usage bag material is subject to wear, and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.

For replacement bags, use only factory authorized replacement bag.

## ADJUSTMENTS



**WARNING:** Disconnect the spark plug wire and ground against the engine before performing any adjustments, repairs or maintenance.

### SEAT ADJUSTMENT

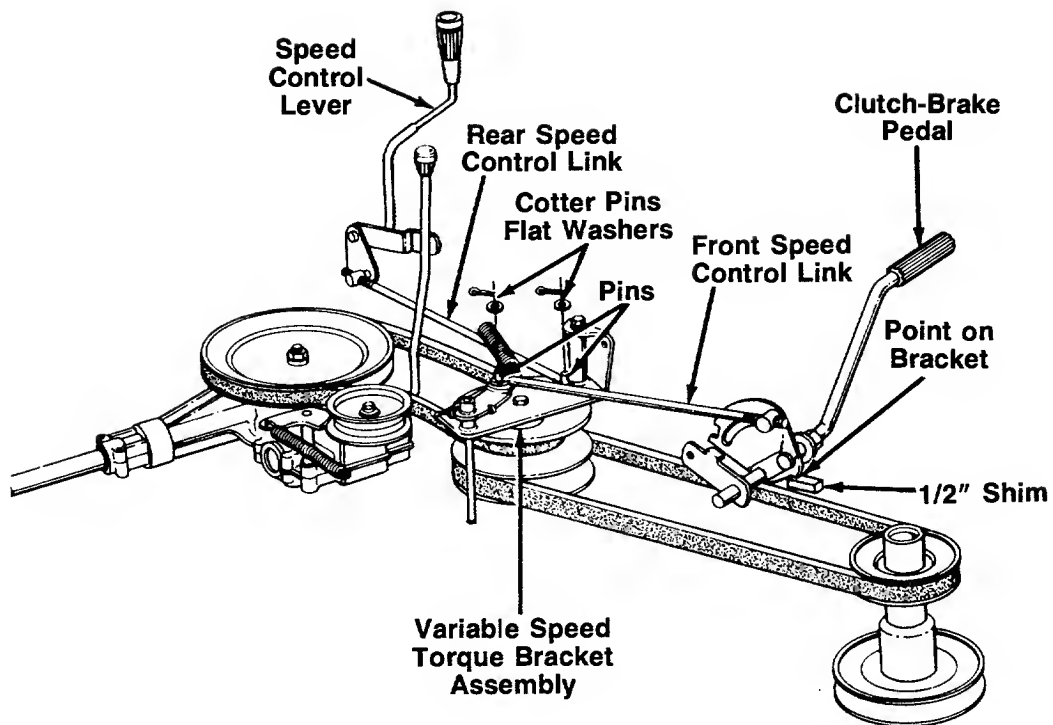
To adjust the position of the seat, loosen the four self-tapping screws on the bottom of the seat. See figure 3. Slide the seat forward or backward as desired. Retighten the self-tapping screws.

### SPEED CONTROL ADJUSTMENT (See figure 14)

**NOTE:** When operating the unit initially or after replacing the belts, there will be little difference between the sixth and seventh speeds until after the belts have gone through a break-in period and have seated themselves into the pulleys.

If speed control adjustment is needed, adjust the speed control links as follows. (A 1/2" shim or suitable spacer is required.)

1. Start the engine.
2. Place the shift lever in NEUTRAL position.
3. Place the speed control lever in seventh speed position.
4. Release the clutch-brake pedal completely, then slowly depress the pedal all the way (to park position). Hold the pedal in this position.
5. Turn the engine off.
6. After engine stops completely, release the clutch-brake pedal.
7. Disconnect the rear speed control link from the variable speed torque bracket by removing the cotter pin and flat washer.
8. Place the speed control lever in the first position.
9. Disconnect the front speed control link from the variable speed torque bracket by removing the cotter pin and flat washer.
10. Place a 1/2" shim or other suitable object under the point on the bracket on the clutch-brake pedal as shown.



**FIGURE 14.**

11. Thread the front speed control link in or out of the ferrule until the hole in the link lines up with the pin on the variable speed torque bracket. Secure with the flat washer and cotter pin removed in step 9.
12. Push the rear speed control link backward using light pressure, and hold it in this position as you thread it into or out of the ferrule until the hole in the link lines up with the pin on the variable speed torque bracket. Then turn the link clockwise two more times (making it longer).
13. Move the speed selector toward the right so the hole in the rear speed control link fits over the pin on the variable speed torque bracket. Secure with the flat washer and cotter pin removed in step 7.
14. Remove the 1/2" shim from beneath the bracket on the clutch-brake pedal.

### LEVELING THE DECK

1. Check tire pressure in all four tires. Recommended pressure is approximately 12 p.s.i.
2. Make certain all deck wheels are mounted in same relative location.
3. On a level surface, engage the PTO and lower the deck until it reaches the ground.  
All four deck wheels should reach the ground at the same time. If they do not, adjust the deck links as necessary.

**NOTE:** When adjusting the deck links, disengage the PTO. Remove the hairpin clip and washer from the weld bolt. Thread eyebolt up or down the link as necessary, and reassemble.

4. Raise the deck 1/2" to 1" above the ground.

Check to be certain the distance from the bottom edge of the deck to the ground is the same on both sides of the deck. If it is not, adjust the links on the left side of the unit.

Check to be certain the front of the deck is 1/4" to 3/8" lower than the rear of the deck. If it is not, adjust the two front links to obtain this distance.

### STEERING WHEEL ADJUSTMENT

There are four height positions for the steering wheel. To adjust the height of the steering wheel, remove the hex bolt and hex lock nut on the steering shaft. Place the steering wheel in the position desired and secure with hex bolt and hex lock nut. Refer to figure 4.

**NOTE:** When raising the height of the steering wheel, stretch the steering bellow to cover the steering shaft.

The steering shaft may also be adjusted if there is too much play between the steering gear and segment. To adjust, loosen the hex bolt and nut on the front of the bearing retainer bracket. See figure 15. Pry the bearing retainer bracket toward the right until the steering gear engages solidly into the teeth of the steering segment. Retighten the hex bolt and nut.

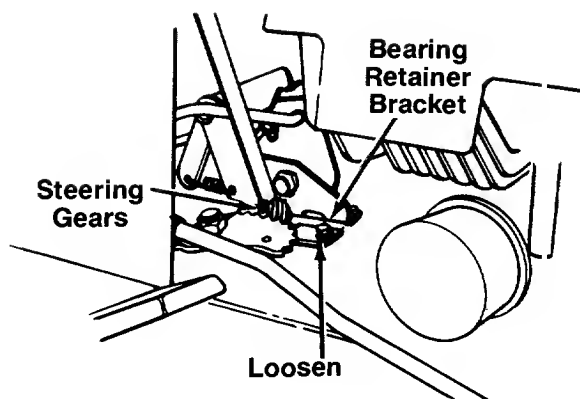


FIGURE 15.

### BRAKE ADJUSTMENT (See figure 16)

The brake is located on the left side of the transaxle. During normal operation of this machine, the brakes are subject to wear and will require periodic examination and adjustment.



**WARNING:** Do not adjust the brake while the engine is running. Be sure to block the wheels of the tractor before making the brake adjustment.

To adjust the brake, remove the cotter pin. Adjust the castle nut so the brake starts to engage when the brake lever is 1/4" to 5/16" away from the axle housing.

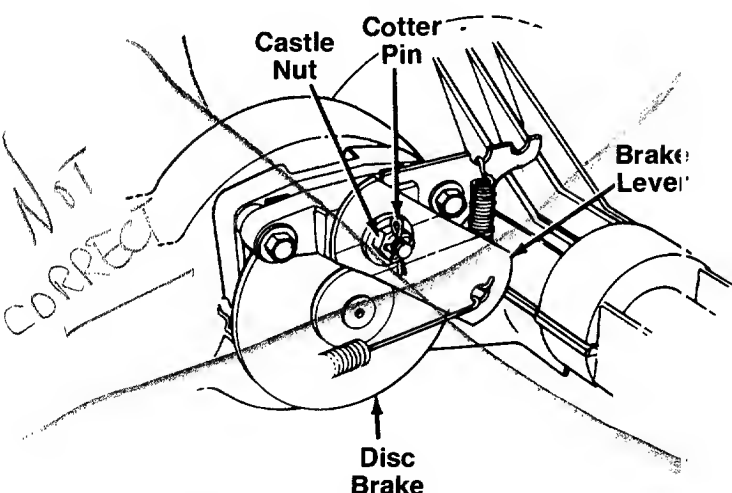


FIGURE 16.

### CARBURETOR ADJUSTMENTS



**WARNING:** If any adjustments are made to the engine while the engine is running (e.g. carburetor), disengage all clutches and blades. Keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load. Refer to separate engine manual for carburetor adjustment information.

**NOTE:** A dirty air cleaner will cause an engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor.

## LUBRICATION



**WARNING:** Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn tractor.

### STEERING GEARS

Lubricate teeth of steering gears with automotive multi-purpose grease after every 25 hours of operation or once a season. Refer to figure 15.

### STEERING SHAFT

Lubricate steering shaft at least once a season with light oil.

### TRANSAXLE

The transaxle is lubricated and sealed at the factory and does not require checking. If disassembled for any reason, lubricate with 16 oz. of Benalene grease #372-0, part number 737-0223.

### LINKAGE

Once a season lubricate all the pivot points on the clutch, brake and lift linkage with SAE 30 engine oil.

### WHEELS

The front wheels are provided with grease fittings. The rear wheels must be removed from the axle for lubrication. Lubricate at least once a season with automotive multi-purpose grease.

### PIVOT POINTS

Lubricate all pivot points with light oil at least once a season.

### BALL JOINTS

The ball joints and drag link ends are permanently lubricated.

## MAINTENANCE



**WARNING:** Disconnect the spark plug wire and ground against the engine before performing any adjustments, repairs or maintenance.

### TROUBLE SHOOTING

Refer to the chart on pages 18 and 19 for trouble shooting engine problems.

## CRANKCASE OIL

Check the oil level in the crankcase before each use of the machine and after every two hours of operation. Oil level should be maintained as instructed in the separate engine manual.

After the first two hours of operating a new engine, drain the oil from the crankcase while engine is still hot and refill crankcase with new oil; thereafter change the oil after every 25 hours of operation. Refer to the engine manual.

## FUEL FILTER

Your unit is equipped with a replaceable in-line fuel filter. Replace filter whenever contamination or discoloration is noticed. Order replacement filter through your authorized engine service dealer.

## WHEEL ADJUSTMENT

The caster (forward slant of the king pin) and the camber (tilt of the wheels out at the top) require no adjustment. Automotive steering principles have been used to determine the caster and camber on the tractor. The front wheels should toe-in 1/8 inch.

To adjust the toe-in, follow these steps.

1. Remove the hex nut and lock washer, and drop the end of the tie rod from the axle bracket. See figure 17.
2. Loosen the hex jam nut on tie rod.
3. Adjust the tie rod assembly for correct toe-in.

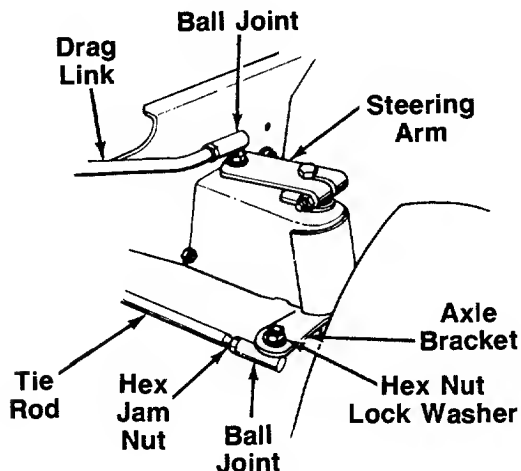


FIGURE 17.

Dimension "B" should be approximately 1/8" less than Dimension "A." See figure 18. To increase Dimension "B," screw tie rod into tie rod end. To decrease Dimension "B," unscrew tie rod from tie rod end. Reassemble tie rod. Check dimensions. Readjust if necessary.

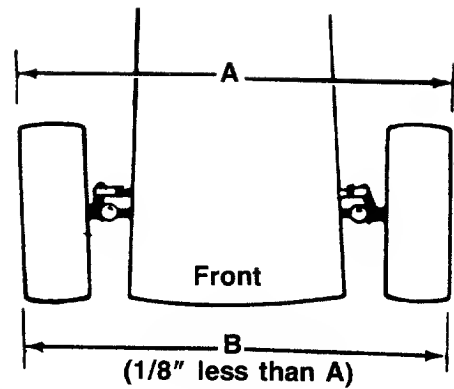


FIGURE 18.

## DRAG LINK

If the drag link or ball joints are changed, the new assembly must be adjusted to the exact same length as the original. If adjusted incorrectly, it will allow the tractor to turn sharper one direction than the other.

To take off the drag link, remove the nuts and lock washers holding the ball joint to the steering gear and right front axle bracket. See figure 17.

## ENGINE

Refer to separate engine manual for all engine maintenance procedures.

## MAINTENANCE OF BATTERY

1. Check electrolyte level periodically (at least every two weeks). Keep the level to the split rings. Use only distilled water or a good quality drinking water. Never add acid or any other chemicals to the battery after initial activation.
2. The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225, the battery should be recharged. Maximum charge rate 5 AMPS.
3. Coat the terminals and exposed wire with a thin coat of grease or petroleum jelly for longer service and protection against corrosion.
4. The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells.
5. Avoid tipping the battery. Even a "sealed" battery will leak electrolyte when tipped.

## STORAGE OF THE BATTERY

1. Charge battery using normal methods. NEVER store discharged battery as it will not recover.
2. When storing battery for extended periods, disconnect battery cables. Removing battery from unit is recommended.
3. Store in cold, dry place.

4. Recharge battery whenever the specific gravity is less than 1.225, before returning to service, or every two months, whichever occurs first.

## COMMON CAUSES FOR BATTERY FAILURE

1. Overcharging
2. Undercharging
3. Lack of water
4. Loose hold downs and/or corroded connections
5. Excessive loads
6. Battery electrolyte substitutes
7. Freezing of electrolyte

**NOTE:** These failures do not constitute warranty.

## BATTERY REMOVAL OR INSTALLATION



**WARNING:** When removing the battery, follow this order of disassembly to prevent your wrench from shorting against the frame.

1. Remove the Negative cable.
2. Remove the Positive cable.

To install a battery:

1. Attach the Positive cable.
2. Attach the Negative cable.

## JUMP STARTING

1. Attach the first jumper cable from the Positive terminal of the good battery to the Positive terminal of the dead battery.
2. Attach the second jumper cable from the Negative terminal of the good battery to the FRAME OF THE UNIT WITH THE DEAD BATTERY.



**WARNING:** Failure to use this starting procedure could cause sparking, and the gases in either battery could explode.

## TIRES

Recommended operating tire pressure is approximately 12 p.s.i. (check sidewall of tire for tire manufacturer's recommended pressure). Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.

When installing a tire to the rim, be certain rim is clean and free of rust. Lubricate both the tire and rim generously. Never inflate to over 30 p.s.i. to seat beads.

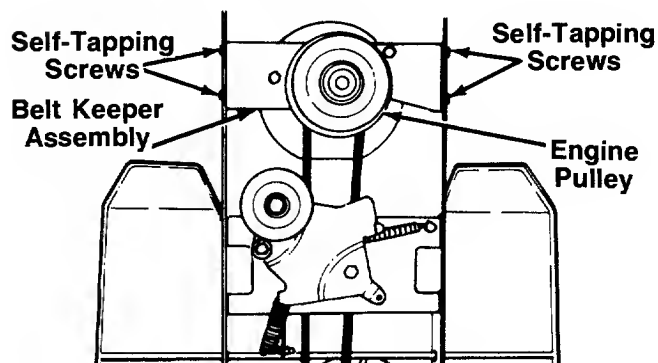


**WARNING:** Excessive pressure (over 30 p.s.i.) when seating beads may cause tire/rim assembly to burst with force sufficient to cause serious injury.

## BELT REPLACEMENT

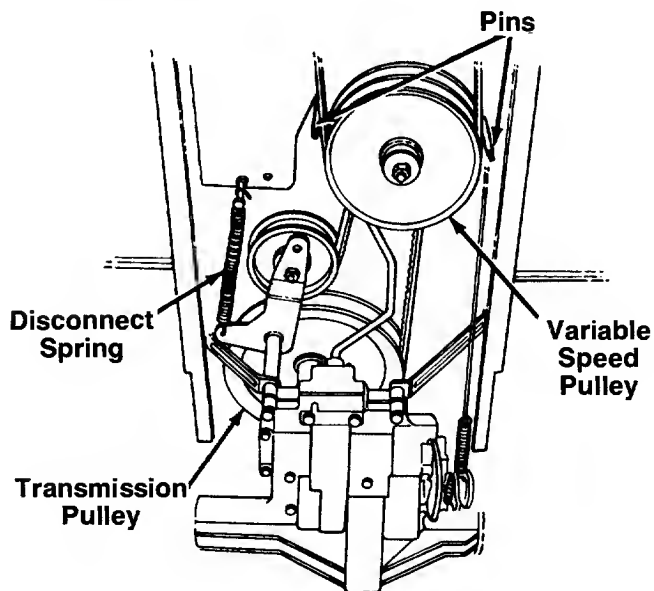
### Front Drive Belt

1. Depress the clutch pedal and set parking brake.
2. Remove the deck from the tractor.
3. Raise and block the front wheels of the tractor so you can work under it.
4. Remove the four self-tapping screws which hold the belt keeper assembly to the frame at the engine pulley. Push the belt keeper assembly forward, out of the way. See figure 19.



**FIGURE 19.**

5. Remove the two pins which act as belt keepers by the variable speed pulley. See figure 20.
6. Roll the belt off the variable speed pulley, then remove from the engine pulley.
7. Reassemble the new belt, following instructions in reverse order.



**FIGURE 20.**

### Rear Drive Belt

1. First remove the front drive belt as instructed in the previous section.



2. Disconnect the spring which secures the idler pulley to the frame.
3. Remove the transmission cover by unscrewing the two knobs, and removing two truss machine screws.
4. Roll the belt over the top of the transmission pulley. Remove belt from the variable speed pulley.
5. Reassemble the new belt, following instructions in reverse order.

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## OFF-SEASON STORAGE

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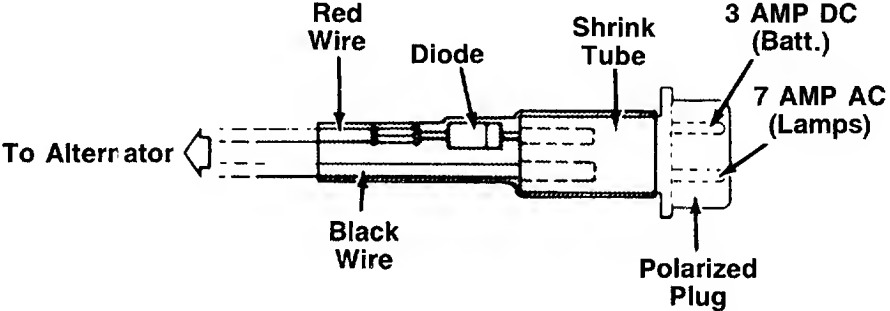
If the machine is to be inoperative for a period longer than 30 days, prepare for storage as follows.

1. Clean the engine and the entire unit thoroughly.

2. Lubricate all lubrication points. Wipe the entire machine with an oiled rag to protect the surfaces.
3. Refer to the engine manual for correct engine storage instructions. The engine must be completely drained of fuel to prevent gum deposits from forming on essential carburetor parts, fuel lines and fuel tanks.
4. Refer to battery storage instructions on page 15.
5. Store unit in a clean, dry area.

**NOTE:** *When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment, especially any chains, springs, bearings and cables.*

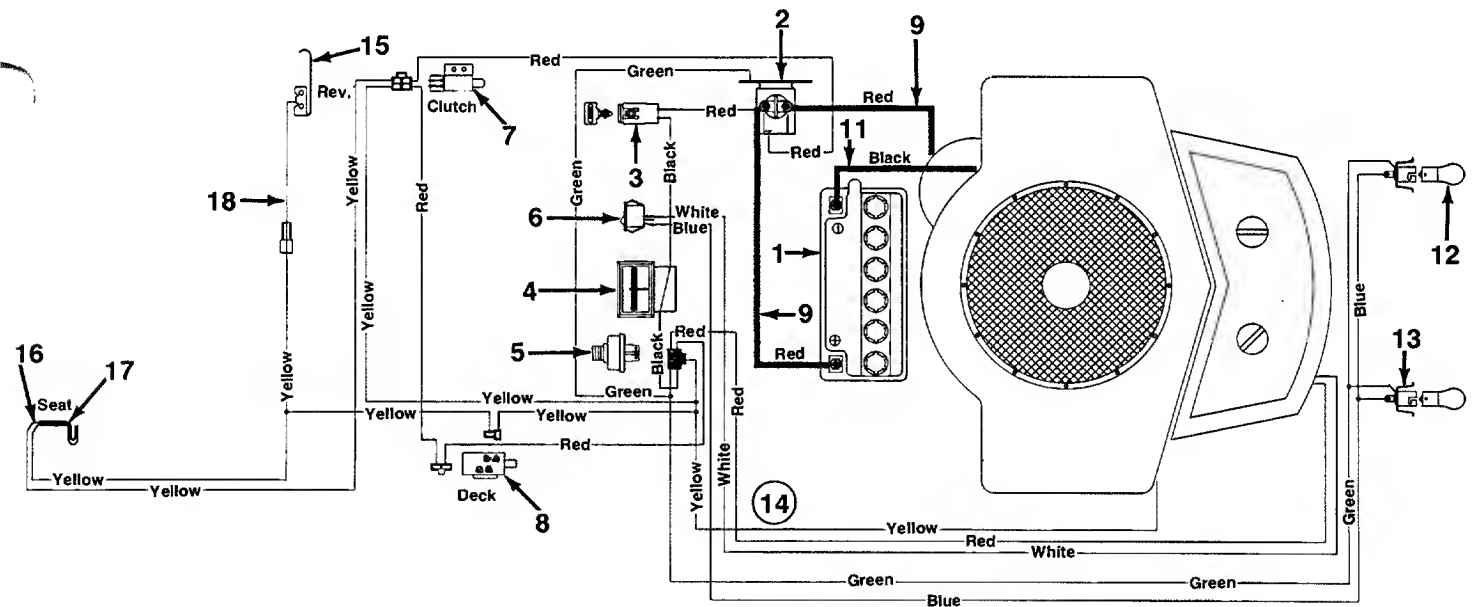
# TROUBLE SHOOTING CHART

TROUBLE	LOOK FOR	REMEDY
Engine will not crank	Battery installed incorrectly	The battery must be installed with the negative terminal, identified at the terminal post by (Neg, N or -), grounded. The positive terminal (Pos, P or +) attaches to the large cable from the solenoid. The small red wire from the fuse holder or circuit breaker is also attached to the positive terminal.
	Blown fuse or circuit breaker	Replace fuse with 7½ amp. fuse ¼ x 1¼" lg. Circuit breaker will reset itself when it cools off. Fuses or circuit breakers seldom open or fail without a reason. The problem must be corrected. Check for loose connections in the fuse holder. Replace fuse holder if necessary. A dead short may be in the cranking or charging circuit where the insulation may have rubbed through and exposed the bare wire. Replace the wire or repair with electrician's tape if the wire strands have not been damaged. Note: Look for a wire pinched between body panels, burned by the exhaust pipe or muffler or rubbed against a moving part.
	Battery is dead or weak	<p>Use a hydrometer to check the condition of the battery. The Specific Gravity (s.g.) should be 1.265 at 80°F. (1.215 s.g. minimum needed for cranking engine). The reason for the battery failing must be determined. (1) Defective battery. Battery will not accept or hold a full charge. (2) Short circuit. Check for grounded wire. (3) Charging system not working.</p> <p>The charging system is an alternator located under the flywheel. It is unregulated and rated 3 amp. at 3600 r.p.m. A diode (rectifier) is located in the output lead just before the wire harness plug on the engine side.</p> <div style="text-align: center;">  <p>The diagram shows a cross-section of the wiring harness. On the left, a red wire is labeled 'Red Wire' and 'To Alternator'. It passes through a 'Diode' and a 'Shrink Tube'. On the right, a black wire is labeled 'Black Wire'. Another red wire is labeled '3 AMP DC (Batt.)' and a black wire is labeled '7 AMP AC (Lamps)'. A 'Polarized Plug' is shown at the bottom right.</p> </div> <p>The diode charges A.C. to D.C. to charge the battery. A bad diode can either fail to charge the battery or discharge the battery if the alternator is shorted as well as the diode. To test: (1) Disconnect charger lead from the battery (small red wire). (2) Connect 12 V small test lamp between the 3 amp. D.C. charge lead and the positive terminal of the battery. (3) With the engine off, the lamp should not light. If it does, the diode and possibly the alternator should be replaced. (4) Start the engine. The lamp should light. If it does not, the alternator (stator) or lead wire is bad and should be replaced.</p>
	Mechanical failure (Wires and switches)	The interlock system includes two mechanical activated switches which are wired in series in the circuit used to energize the starter solenoid. While testing the interlock system, you will make the mower temporarily unsafe by permitting the engine to be started with the blade and clutch engaged. <b>WARNING:</b> While testing, disengage the clutch, shut off the blade control, set the parking brake and place the gear shift lever in neutral. Attach a wire (minimum 18 gauge) to the positive terminal of the battery and touch the other end to the small terminal on the solenoid. <b>If the engine does not crank:</b> (1) There is a loose connection or poor ground. (2) The solenoid may be bad. The solenoid can be checked by using a heavy wire (#8 gauge minimum) and jumping between the two large terminals. If the engine cranks, the solenoid is bad. (3) If the engine does not crank when you jump the solenoid, have the starter motor tested by an authorized engine dealer. If the engine does crank, the problem is with one of the safety switches, ignition switch or the wire between the fuse holder (or circuit breaker) and the small terminal on the solenoid. Note: Look for a poor connection at the switches or a defective switch. Replace if necessary.
Engine cranks but will not start	Throttle or choke not in starting position	Check owner's guide for correct position for throttle control and choke for starting.
	No spark to spark plug	<p>Spark plug lead disconnected. Connect lead. Hold spark plug lead away from engine block about 1/8". Crank engine. There should be a spark. If not, have engine repaired at authorized engine service dealer.</p> <p>Faulty spark plug. To test, remove spark plug. Attach spark plug lead to spark plug. Ground the spark plug body against the engine block. Crank the engine. The spark plug should fire at the electrode. Replace if it does not.</p>

# TROUBLE SHOOTING CHART

TROUBLE	LOOK FOR	REMEDY
	No fuel to the carburetor	Gasoline tank empty. Fill. Fuel line or in-line fuel filter plugged. Remove and clean fuel line. Replace filter if necessary.
	Air filter dirty	If the air cleaner is dirty, the engine may not start. Clean or replace as recommended by the engine manufacturer.
Engine smokes	Engine loses crankcase vacuum	Dipstick not seated or broken. Replace defective part. Engine breather defective. Replace.
Excessive vibration	Bent or damaged blade spindle	<b>Stop engine immediately.</b> Check all pulleys, blade adapters, keys and bolts for tightness and damage. Tighten or replace any damaged parts.
	Bent blade	<b>Stop engine immediately.</b> Replace damaged blade. Only use original equipment blades.
Mower will not discharge grass or leaves uncut strips	Engine speed low Transmission selection Blades short or dull	Throttle must be set between 3/4 and full throttle. Use lower transmission speed. The slower your ground speed, the better the quality of cut. Sharpen or replace blades (uncut strip problem only).

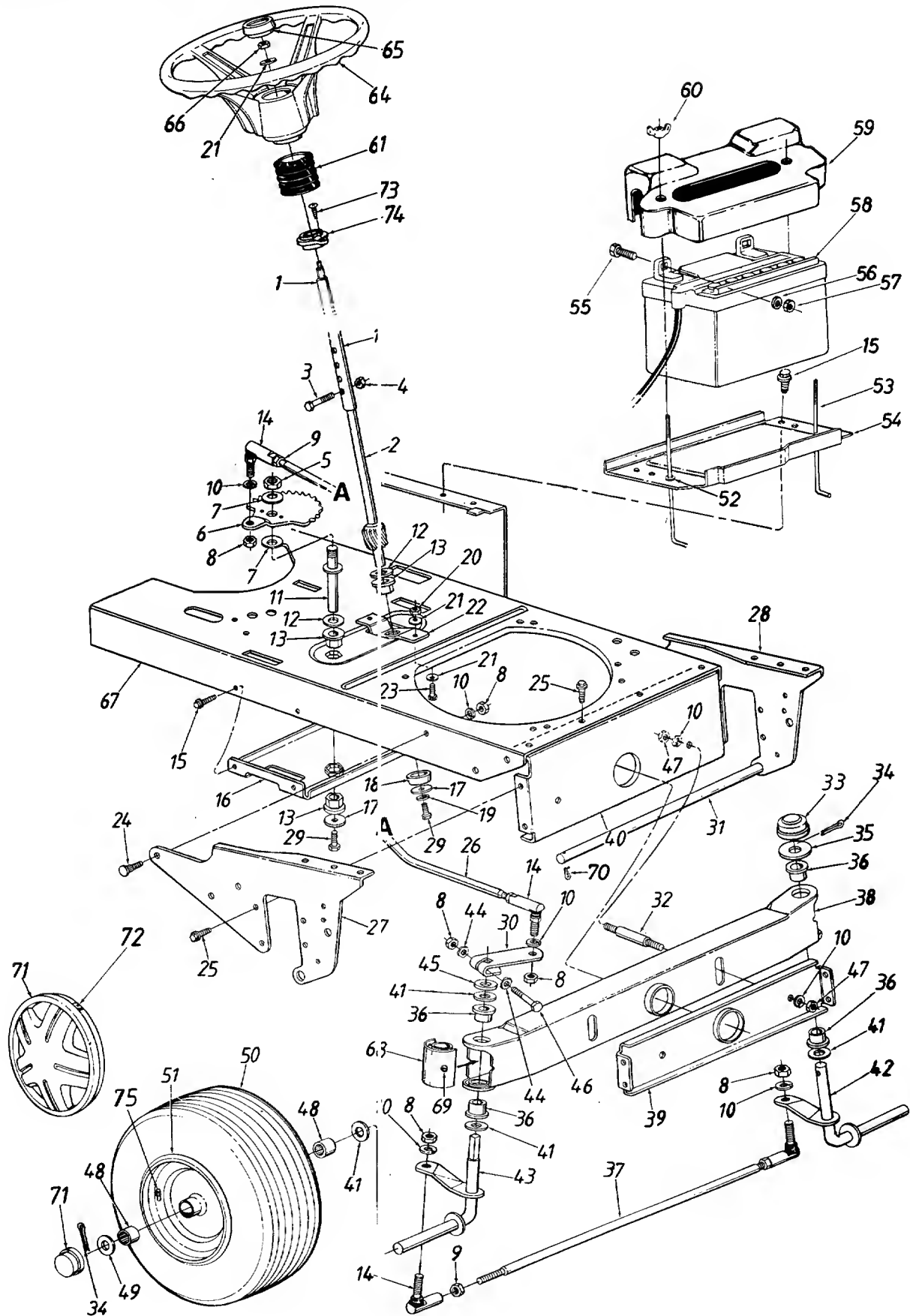
## Models 800 thru 809



### PARTS LIST FOR ELECTRICAL SYSTEM

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	725-1430		Battery (275 Cold Crank Amps)	11	725-0996		Ground Wire 7.5" Lg.
2	725-1426	N	Solenoid	12	725-0963		Lamp
3	725-1625	N	Fuse 7.5 Amp	13	725-1058A		Socket
4	725-0925		Ammeter	14	629-0034	N	Wire Harness
5	725-0267		Ignition Switch	15	725-0759		Spring Switch
6	725-0634		Light Switch	16	725-1303		Spring Switch
7	725-3169A	N	Safety Switch (Clutch)	17	725-1439		Spring Switch
8	725-0465A		Safety Switch (PTO)	18	725-1399		Ext. Wire
9	725-0561		Electric Wire 14" Lg.				

# Models 800 thru 809



# Models 800 thru 809

## PARTS LIST FOR MODELS 800 THRU 809 LAWN TRACTORS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	16512		Steering Column Ass'y.	41	736-0188		Fl-Wash. .76" I.D. x 1.49" O.D.
2	738-0763		Lower Steering Shaft	42	<del>16915</del> 16913		Front Axle Ass'y.—L.H.
3	710-0958		Hex Bolt 1/4-20 x 1.31" Lg.	43	<del>16914</del> 16912		Front Axle Ass'y.—R.H.
4	712-0324		Hex L-Nut 1/4-20 Thd.	44	736-0286		Bowed Washer
5	712-0337		Hex Nut 5/8-18 Thd.*	45	748-0160		Spacer .755" I.D. x 1.25" O.D.
6	717-0943A		Steering Gear Segment	46	710-0331		Hex Bolt 3/8-24 x 2.25" Lg.
7	736-0317		Bell-Wash. 5/8" I.D. x 1.25" O.D.	47	712-0798		Hex Nut 3/8-16 Thd.*
8	712-0241		Hex Nut 3/8-24 Thd.	48	741-0516		Flange Brg. .75" I.D.
9	712-0711		Hex Jam Nut 3/8-24 Thd.	49	736-0316		Fl-Wash. .71" I.D. x 1.5" O.D.
10	736-0169		L-Wash. 3/8" I.D.*	50	734-1703	N	Wheel Ass'y. Comp.
11	738-0768		Steering Gear Segment Shaft		734-0864		Tire Only
12	736-0187		Fl-Wash. .64" I.D. x 1.24" O.D.	51	734-0961B	N	Rim Only
13	748-0227		Hex Flange Brg. .63" I.D.	52	726-0271		Push Nut
14	723-3018		Ball Joint Ass'y.	53	711-0222		Battery Hold Down Rod
15	710-0599		Hex Wash. Hd. TT-Tap Scr.	54	17635		Battery Plate
			1/4-20 x .5" Lg.		17634		Battery Plate (800 Only)
16	16888		Deck Idler Support Brkt.	55	710-0258		Hex Bolt 1/4-20 x .62" Lg.*
17	736-0343		Fl-Wash. .33" I.D. x 1.25" O.D.	56	736-0329		L-Wash. 1/4" I.D.*
18	750-0532		Spacer .985" I.D. x 1.25" O.D.	57	712-0287		Hex Nut 1/4-20 Thd.*
19	736-0119		L-Wash. 5/16" I.D.*	58	725-1430		Battery (275 Cold Crank Amps)
20	712-0123		Hex Nut 5/16-24 Thd.*	59	731-1132		Battery Cover
21	736-0242		Bell-Wash. .345" I.D. x .88" O.D.	60	712-0113		Wing Nut Plastic 1/4-20 Thd.
22	16894		Bearing Retainer Brkt.	61	731-0954		Steering Bellow (800, 804, 806 & 809)
23	710-0157		Hex Bolt 5/16-24 x .75" Lg.		731-0559		Steering Bellow (802, 803 & 804)
24	710-0793		Ribbed Neck Bolt 3/8-24 x .8" Lg.	64	731-0805		Steering Wheel (3 Spoke)
25	710-0604		Hex Wash. TT-Tap Scr.		731-0806A		Steering Wheel (4 Spoke)
			5/16-18 x .62" Lg.	65	731-0220		Steering Wheel Cap
26	747-0579		Steering Drag Link	66	712-0237		Hex L-Nut 5/16-24 Thd.
27	16896		Pivot Bar Side Plate—R.H.	67	17359A		Lower Frame
28	16897		Pivot Bar Side Plate—L.H.	68	731-1049		Pivot Bar End Cap†
29	710-0538		Hex Bolt 5/16-18 x .62" Lg.	69	737-0146		Grease Fitting†
30	16918		Steering Arm	70	714-0149B		Internal Cotter Pin
31	738-0777		Deck Connecting Rod	71	731-0484A		Hub Cap
32	738-0775		Pivot Bar Shld. Bolt 3/8-16 x 5/8" Lg.		734-1503		Hub Cap (5 Spoke)†
33	731-0484A		Cap	72	727-0425A	N	Spring Clip†
34	714-0121		Cotter Pin 5/32" Dia.	73	710-0837		Oval Hd. Cr.-Sunk Scr. #10 x 5/8" Lg. (Not Used on Styles 0, 4, 6, 9)
35	736-0316		Flat Washer				Flange Brg. .89" I.D. x 1.36" O.D. (Not Used on Styles 0, 4, 6, 9)
36	741-0523		Flange Brg. .757" I.D.	74	741-0356		Air Valve
37	747-0721		Tie Rod 20.25" Lg.				
38	16843		Pivot Bar Assy.				
39	16889		Pivot Bar Support Brkt.—Front	75	734-0255		
40	16890		Pivot Bar Support Brkt.—Rear				

### †Optional Parts

\*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

**CODE: N** notates a **new part** (not previously existing). A three digit number is the **color code**. Specify color code as shown below if color or finish is important when ordering parts. [i.e., 638 for Red Finish].

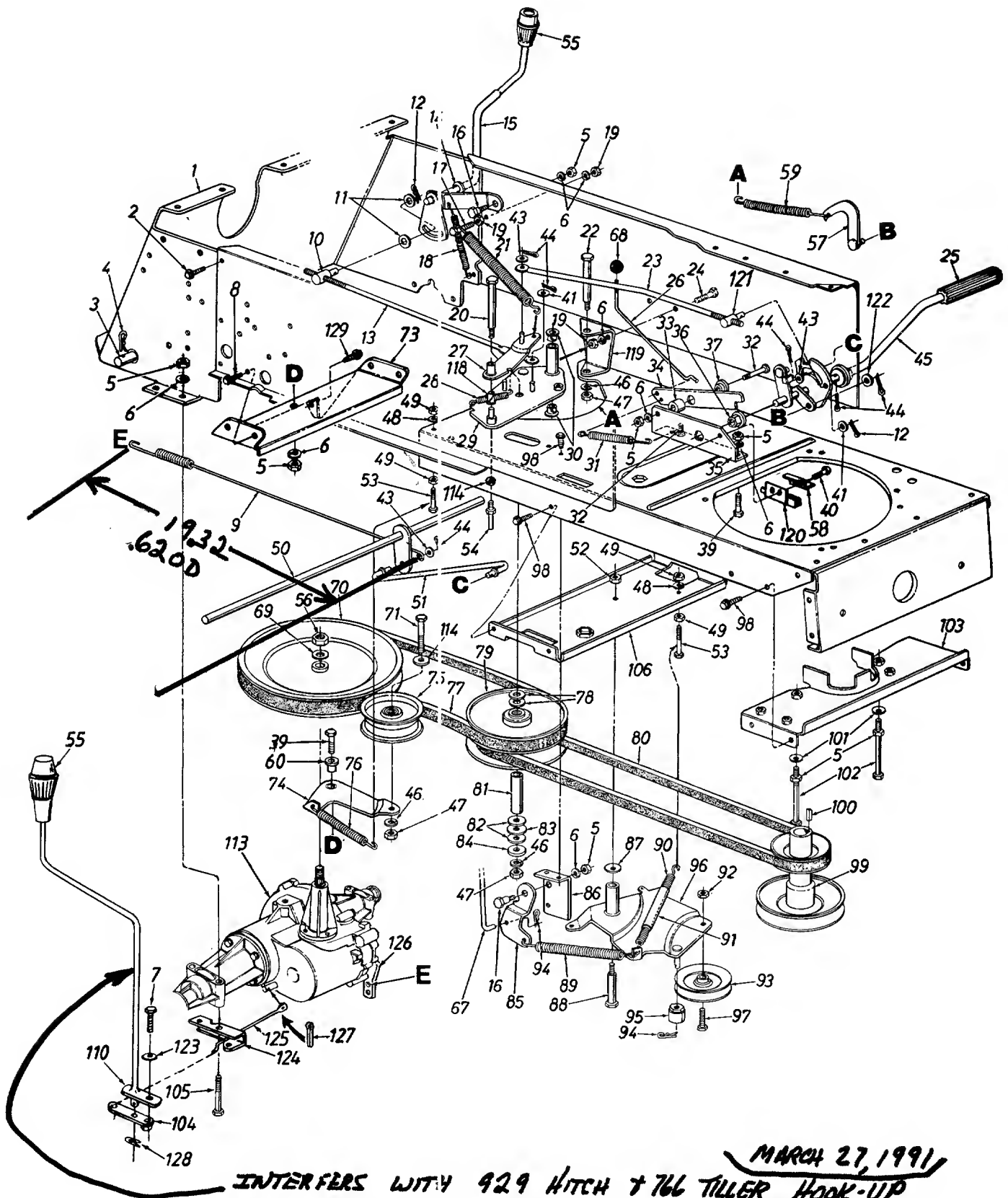
### NOTE

This instruction manual covers various models, and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

### Color Codes

456—Radiant Tangerine	629—Silver Flake
460—Green Flake	630—Metallic Blue
483—Charcoal Gray	637—Black
498—Yellow	638—Red
499—Beige	640—Green
621—Brilliant Fire Mist	646—CM Blue

# Models 800 thru 809



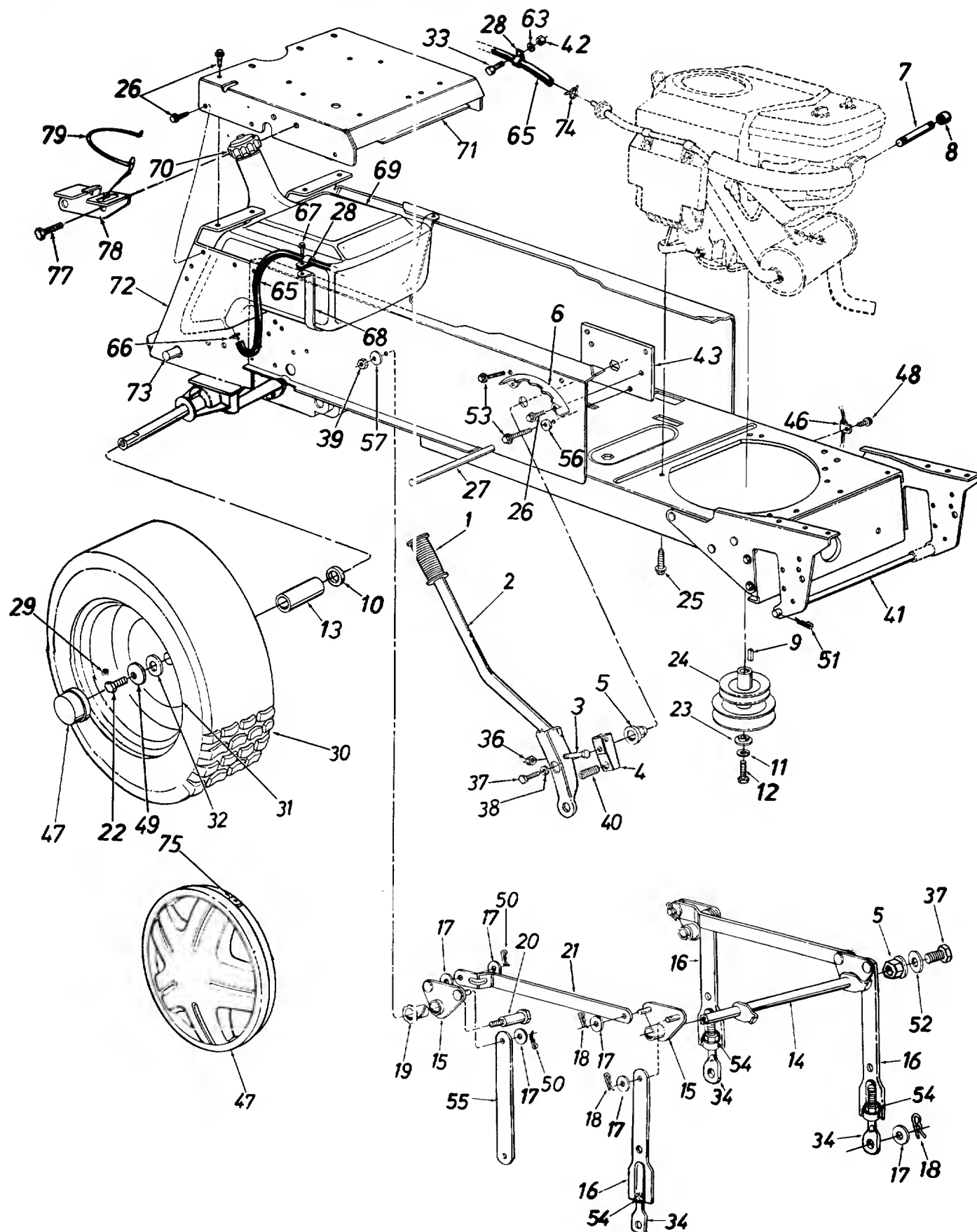
MARCH 27, 1991,  
 INTERFERS WITH 929 HITCH + 766 TILLER Hook-UP.  
 No FIX UNTIL 1992. SHIFT LEVER FOR 1992  
 WILL BE INSIDE REAR HITCH PLATE

# Models 800 thru 809

## PARTS LIST FOR MODELS 800 THRU 809 LAWN TRACTORS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	17342A		Hitch Plate	59	732-0698	N	Ext. Spring 5.2" Lg.
2	710-0726		Hex AB-Tap Scr. 5/16" x .75"	60	748-0331		Shld. Spacer .318" I.D. x 1.125"
3	738-0482		Hitch Rod	67	—		Deck Control Rod (Refer to Style Sheet)
4	714-0147		Hitch Pin Clip	68	720-0166		Ball Knob Brake
5	712-0267		Hex Nut 5/16-18 Thd.*	69	736-0427		Bell-Wash. 9/16" I.D. x 1.25"
6	736-0119		L-Wash. 5/16" I.D.*	70	756-0534		V-Pulley 9/4" O.D.
7	710-0195		Hex Bolt 1/4-28 x .62" Lg.	71	710-0539		Hex Bolt 3/8-24 x 1.75" Lg.
8	710-0604		Hex Wash. Hd. TT-Tap Scr. 5/16-18 x .62" Lg.	73	17902		Transaxle Torque Brkt.
9	732-0693	N	Brake Extension Spring	74	17903	N	Idler Brkt. Ass'y.
10	711-0723A		Adjustment Ferrule 3/8-24 Thd.	75	756-0542		Flat Idler 3.5" O.D.
11	736-0267		FI-Wash. .385" I.D. x .87"	76	732-0673		Extension Spring 6.12" Lg. X .560
12	714-0104		Internal Cotter Pin	77	754-0361	N	V-Belt .85 x 53.5
13	747-0729		Speed Control Link (Rear)	78	736-0414		Teflon Washer 1.20" O.D.
14	736-0192		FI-Wash. .531" I.D. x .94"	79	717-0945	N	Variable Speed Pulley 6" Dia.
15	16906		Speed Selector Lever Ass'y.	80	754-0358		V-Belt
16	738-0155		Shld. Bolt .437" Dia. x .162"	81	738-0778		Pivot Bushing
17	710-0672		Hex Bolt 5/16-24 x 1.25" Lg.	82	736-0355		FI-Wash. .56" I.D. x 1.0" O.D.
18	732-0429A		Extension Spring 3.9" Lg.	83	741-0805		Thrust Brg. .56" I.D. x 1.25"
19	712-3057		Hex Nut 5/16-24 Thd. (Gr. 5)	84	17485		Retainer Cup
20	710-0620		Hex Bolt 3/8-24 x 4.5" Lg.	85	13887		Deck Control Pivot Brkt.
21	732-0603		Extension Spring 11" Lg.	86	13833		Parking Brake Mtg. Brkt.
22	738-0779		Shld. Bolt .625" Dia. x 3.5" Lg.	87	736-0105		Bell-Wash. .38" I.D. x .88" O.D.
23	747-0726		Speed Control Link (Front)	88	738-0129		Shld. Bolt .498" Dia. x 2.05"
24	710-0157		Hex Bolt 5/16-24 x .75" Lg.	89	732-0478		Extension Spring 6.12" Lg.
25	735-0196		Foot Pad	90	732-0308		Extension Spring 6.37" Lg.
26	747-0722		Parking Brake Link	91	731-0483		Convolved Conduit 4" Lg.
27	17914	N	Variable Speed Torque Brkt. Ass'y.	92	712-0214		Hex Cent. L-Nut 3/8-24 Thd.
28	732-0568		Extension Spring 2.59" Lg.	93	756-0293A		V-Belt Idler
29	17908	N	Pulley Plate Ass'y.	94	714-0104		Internal Cotter Pin
30	741-0591	N	Flanged Brg. .630" I.D.	95	748-0278		Spacer
31	732-0395		Extension Spring 2.51" Lg.	96	14076A		Idler Brkt. Deck Ass'y.
32	710-0528		Hex Bolt 5/16-18 x 1.25" Lg.*	97	710-0459		Hex Bolt 3/8-24 x 1.5" Lg.
33	750-0214		Spacer .34" I.D. x .88"	98	710-0599		Hex TT-Tap Scr. 1/4-20 x .5"
34	16980		Brake Lockout Bracket	99	756-0531		Engine Pulley
35	16924A		Clutch Ass'y. Mtg. Bracket	100	714-0118		Sq. Key 1/4 x 1.5" Lg.
36	741-0225		Hex Flange Brg. .634" I.D.	101	736-0242		Bell-Wash. .345" I.D. x .88"
37	748-0234		Shld. Spacer .5" Dia.	102	710-0833		Hex Bolt 5/16-18 x 5.25" Lg.
38	736-0187		FI-Wash. .64" I.D. x 1.24"	103	17358C	N	Belt Keeper Brkt. Ass'y.
39	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	104	17832		Shift Lever Link Ass'y.
40	710-0651		Hex Tap Scr. #10-32 x 5/8 Lg.	105	710-3056		Hex Bolt 5/16-18 x 3.25" Lg.
41	736-0185		FI-Wash. .406" I.D. x .75" O.D.	106	16888		Deck Idler Support Brkt.
42	714-0115		Cotter Pin 1/8" Dia.	107	736-0264		FI-Wash. .344" I.D. x .62" O.D.
43	736-0275		FI-Wash. .34" I.D. x .68" O.D.	110	17904		Shift Lever Ass'y.
44	714-0111		Cotter Pin 3/32" Dia.	112	710-1048		Socket Hd. Cap Scr. #10 x 24
45	17910	N	Foot Pedal Ass'y.	113	618-0003	N	Transmission Comp.
46	736-0169		L-Wash. 3/8" I.D.*	114	736-0258		FI-Wash. 3/8" I.D. x 1.0" O.D.
47	712-0241		Hex Nut 3/8-24 Thd.	118	741-0419		Nyliner Flanged Brg.
48	736-0329		L-Wash. 1/4" I.D.*	119	17180		Variable Speed Support Brkt.
49	712-0287		Hex Nut 1/4-20 Thd.*	120	725-3169A	N	Safety Switch (Clutch)
50	17349		Brake Link Bracket	121	711-0832		Adjustment Ferrule 3/8-24 Thd.
51	747-0724		Front Brake Rod Link	122	736-0204		FI-Wash. .344" I.D. x .62" O.D.
52	712-0375		Hex Cent. L-Nut 3/8-16 Thd.	123	736-0270		Bell-Wash. .265" I.D. x .75" O.D.
53	710-0501		Hex Bolt 1/4-20 x 2.0" Lg.	124	17767A		Shift Lever Support Brkt.
54	711-0828		Belt Guard Pin	125	747-0774		Shift Lever Rod
55	720-0218		Shift Knob	126	717-0772A	N	Actuating Arm
56	712-3035		Hex Jam Nut 9/16-18 Thd.	127	714-0474		Cotter Pin 3/4" Lg.
57	17912	N	Foot Pedal Brkt. Ass'y.	128	714-0149B		Internal Cotter Pin
58	17962	N	Switch Plate	129	710-0909		Hex Wash. Hd. TT-Tap Scr. 5/16-18 x 1.75" Lg.

## Models 800 thru 809





# Models 800 thru 809

## PARTS LIST FOR MODELS 800 THRU 809 LAWN TRACTORS

IF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	720-0233		Grip	37	710-0237		Hex Bolt 5/16-24 x .62" Lg.*
2	17282		Lift Handle Ass'y.	38	736-0119		L-Wash. 5/16" I.D.*
3	710-0442		Hex Bolt 5/16-18 x 1.5" Lg.*	39	712-0181		Hex Top L-Nut 3/8-16 Thd.
4	748-0274A		Lift Shaft Drive	40	732-0369		Compression Spring
5	741-0225		Plastic Hex Brg. 5/8" I.D.	41	738-0777		Deck Connecting Rod
6	14231		Index Brkt. Deck Lift	42	712-0287		Hex Nut 1/4-20 Thd.*
7	737-0164		Pipe Nipple 3/8-18 Npt.	43	14170		Index Brkt. Reinforcement Plate
8	737-0143		Pipe Cap 3/8-18 Npt.				Mounting Clamp
9	714-0118		Sq. Key 1/4" x 1/4" x 1.50" Lg.	46	726-0273		Hub Cap
10	736-0188		FI-Wash. .76" I.D. x 1.49" O.D.	47	731-0556		Hub Cap (5 Spoke—Optional)
11	736-0171		L-Wash. 7/16" I.D.		734-1504		Hex Wash. Hd. TT-Tap Scr. 1/4-20 x .5" Lg.
12	710-0757		Hex Scr. 7/16-20 x 1.50" Lg.	48	710-0599		Bell-Wash. .39" I.D.
13	731-1086		Sleeve .75" I.D. x 1" O.D.				Cotter Pin .09 Dia. x 1.0" Lg.
14	13889		Lift Shaft Ass'y.	49	736-0242		Int. Cotter Pin
15	13895		Lift Pivot Brkt. Ass'y.	50	714-0111		Flat Wash. .34" I.D. x 1.12" O.D. x .125"
16	17303		Adj. Deck Lift Link	51	714-0149B		Hex Wash. Hd. AB-Tap Scr. 5/16-24 x .5" Lg.
17	736-0192		FI-Wash. 1/2" I.D. x 1.00" O.D. x .090"	52	736-0231		Hex Nut 1/2-13 Thd.
18	714-0101		Hairpin Cotter	53	710-0600		Deck Link
19	741-0295		Nyliner 5/8" I.D. x .88" Lg.	54	712-0206		FI-Wash. .34" I.D.
20	738-0445		Shld. Bolt 5/8" Dia. x .96" Lg. 3/8-16	55	14399		Bell-Wash. .4" I.D. x 1.13" O.D.
21	13790		Connecting Link	56	736-0264		Hex Bolt 5/16-18 x .75" Lg.*
22	710-0627		Hex Bolt 5/16-24 x .75" Lg.	57	736-0219		L-Wash. 1/4" I.D.*
23	736-0322		Flat Wash. .44" I.D. x 1.25" O.D. x .17"	60	710-0118		Fuel Line 50" Lg.
24	756-0531		Two-Step Engine Pulley	63	736-0329		Hose Clamp
25	710-0502A		Hex Wash. Hd. Scr. 3/8-16 x 1.25" Lg.	65	751-0535-50		Hex AB-Tap Scr. 1/4 x .62" Lg.
26	710-0726		Hex Thd. Rolling Scr. 5/16-18 x .75" Lg.	66	726-0205		Fuel Tank Strap
27	738-0435		Running Board Rod	67	710-0776A		Gas Tank
28	726-0272		Clamp	68	17424		Gas Gauge 11.2 Lg.
29	734-0255		Air Valve	69	751-0528B	N	Seat Plate
30	734-1705	N	Rear Wheel Ass'y. Comp.	70	751-0531B	N	Hitch Plate
	734-1701	N	Tire Only	71	16848B	N	Hitch Rod
31	734-0603A		Rear Wheel Rim Only	72	17342A	N	Hose Clamp
32	736-0346		Flat Wash. .34" I.D. x 2" O.D.	73	738-0482		Spring Clip (Optional)
33	710-0258		Hex Bolt 1/4-20 x .62" Lg.	74	726-0272		Hex Wash. Hd. TT-Tap Scr. 5/16-18 x .62" Lg.
34	711-0817		Eye Bolt Adj. Link 1/2-13 Thd.	75	727-0425A	N	Speed Control Brkt.
36	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	77	710-0604		Comp. Spring Clip
				78	17839		
				79	732-0525		

\*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

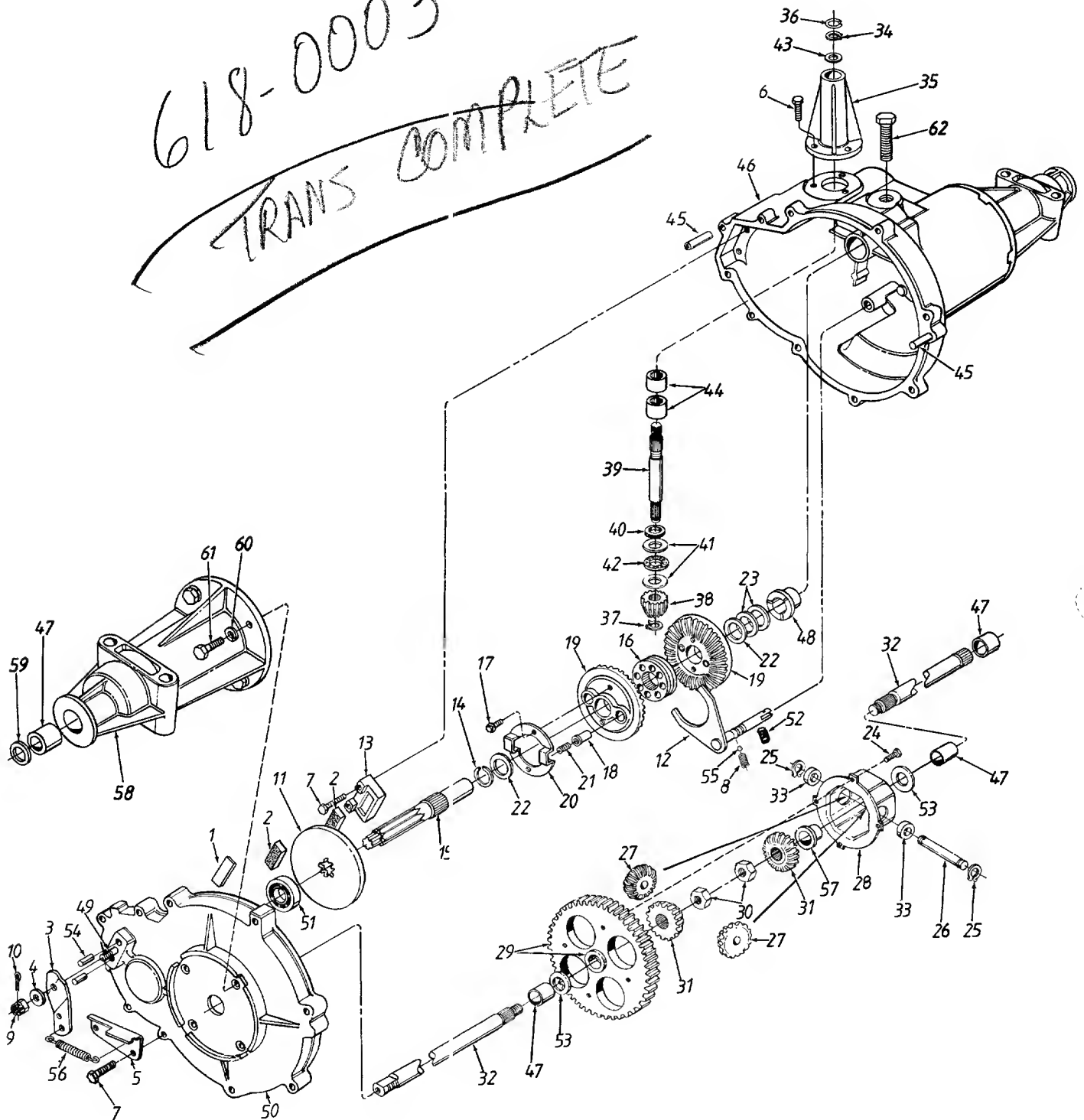
NOTE: The engine is not under warranty by the mower manufacturer...If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."

**Find It Fast  
In The  
Yellow Pages**



# Models 800 thru 809

618-0003  
TRANS COMPLETE



TRANSAXLE COMPLETE  
PART NO. 618-0003

# Models 800 thru 809

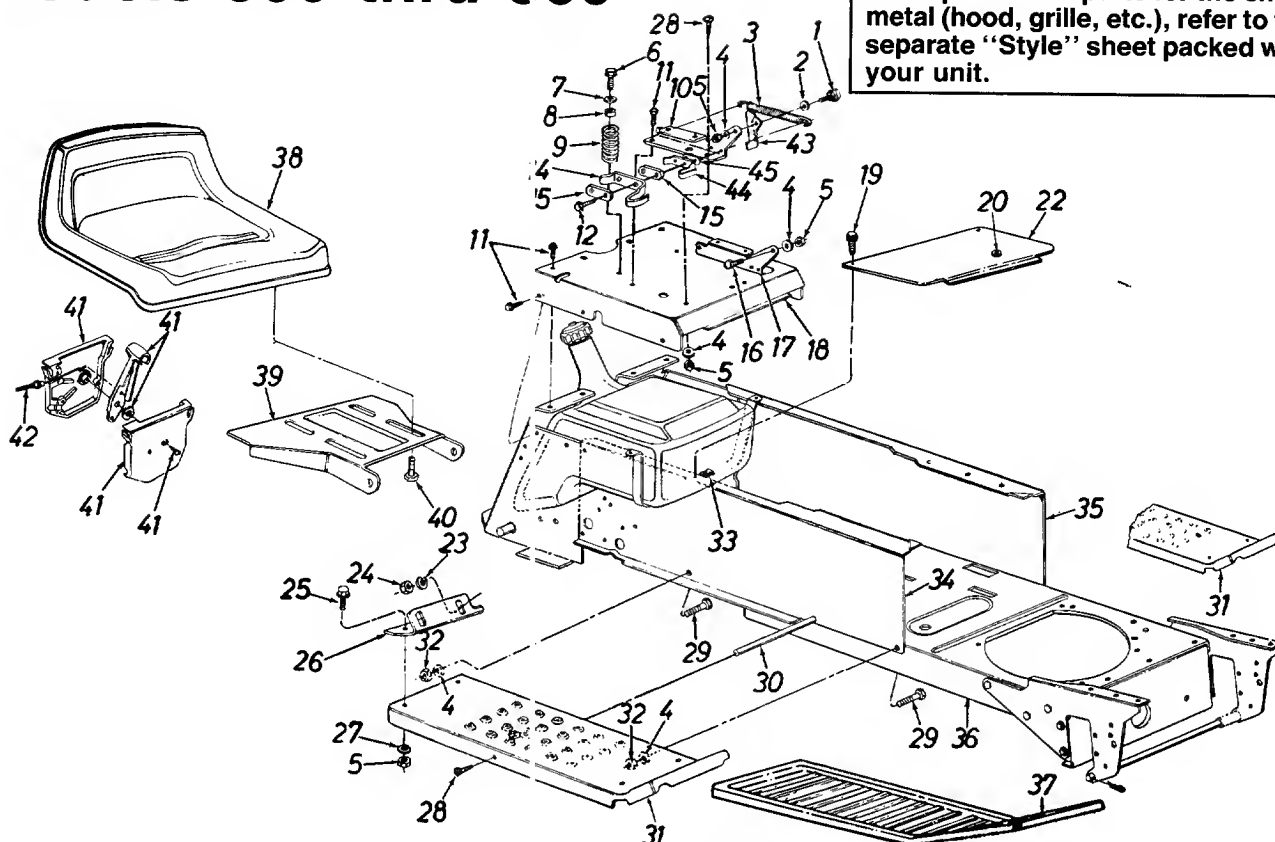
## PARTS LIST FOR MODELS 800 THRU 809 LAWN TRACTORS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	717-0682		Puck Plate	32	711-0865	N	Axle
2	761-0200	N	Brake Puck	33	750-0787		Differential Thrust Spacer
3	717-0772A	N	Actuating Arm	34	716-0171		Retainer Ring
4	736-0371		Fl-Wash. 11/32" I.D. x 7/8" O.D.	35	619-0001	N	Input Bearing Housing
5	17841		Brake Stop Brkt.	36	732-0614		Wire Ring
6	710-0433		Hex Bolt 1/4-20 x .62" Lg. (Special)	37	716-0108		Retaining Ring
7	710-0809		Hex Tap Scr. 1/4-20 x 1.25" Lg.	38	717-0633		Pinion Input 14T
8	732-0863		Spring Detent	39	711-0864	N	Input Shaft
9	712-0335		Castle Nut 5/16-24 Thd.	40	721-0178		Seal 5/8" I.D.
10	714-0111		Cotter Pin 3/32" Dia. x 1" Lg.	41	736-0419		Thrust Wash. .621" I.D. x 1.12"
11	718-0184		Brake Disc	42	741-0469		Thrust Bearing
12	717-1102		Shifter Ass'y.	43	736-0335		Fl-Wash. 5/8" I.D. x 1.25" O.D.
13	717-1217		Brake Puck Holder	44	741-0335		Needle Brg. 5/8" x 1/2" Lg.
14	716-0175		Retaining Ring	45	715-0209		Dowel Pin
15	717-1093		Shaft Drive	46	717-1235		R.H. Housing
16	717-1268		Shift Collar	47	741-0340		Sleeve Bearing 3/4" I.D.
17	710-0653		Hex Wash. Hd. Tap Scr. 1/4-20 x .38" Lg.	48	741-0548		Flange Bearing .906" I.D.
18	717-1184		Drive Pin	49	717-0796		Sq. Head Bolt 5/16-24 Thd.
19	717-1275		Bevel Gear Ass'y. (Incl. Ref. Nos. 17, 18, 20 and 21)	50	717-1234		L.H. Housing
20	717-1269		Spring Retaining Plate	51	741-0124		Ball Bearing .669" I.D.
21	732-0590		Drive Spring	52	710-3006		Set Screw 5/16-18 x 3/8" Lg.
22	736-0444		Fl-Wash. .915" I.D. x 1.5" O.D.	53	736-0445		Fl-Wash. .76" I.D. x 1.5" O.D.
23	736-0454		Fl-Wash. .915" I.D. x 1.37" O.D.	54	741-0343		Brake Actuating Pin
24	710-0862A	N	Pan Hd. Scr. 1/4-20 x .5" Lg.	55	741-0862		Ball Detent
25	716-0184		Snap Ring	56	732-0545		Ext. Spring 1.14" Lg.
26	711-0918	N	Cross Shaft	57	741-0552		Differential Flange Brg.
27	717-1020		Miter Gear 15T	58	618-0013	N	Axle Horn Ass'y. (Incl. Ref. 47 & 59)
28	717-1252		Differential Can Assembly	59	721-0179		Oil Seal 3/4" I.D.
29	717-1254		Differential Gear Ass'y. w/Bearing	60	736-0217		L-Wash. 3/8" I.D. (H.D.)
30	712-0200A		Hex Ins. L-Nut 1/2-20 Thd.	61	710-0191		Hex Bolt 3/8-24 x 1.25" Lg.
31	717-1019		Miter Gear	62	710-0689		Nylon Hex Cap Scr. 1/2-13 x .75" Lg.
				—	618-0003	N	Transaxle Complete

737-~~0323~~ 0148

# Models 800 thru 809

For replacement parts for the sheet metal (hood, grille, etc.), refer to the separate "Style" sheet packed with your unit.



**PARTS LIST FOR MODELS 800 THRU 809 LAWN TRACTORS**

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	738-0296	N	Shld. Bolt .437" Dia. x .162"	26	15846	N	Fender Bracket—R.H.
2	736-0141		Spr. Wash. .445" I.D.		15847		Fender Bracket—L.H.
3	732-0581		Ext. Spring 5.31" Lg.		17406		Fender Bracket—R.H. (809 Only)
4	736-0119		L-Wash. 5/16" I.D.*		17407		Fender Bracket—L.H. (809 Only)
5	712-0267		Hex Nut 5/16-18 Thd.*	27	736-0242		Bell-Wash. .345" I.D. x .88"
6	710-0601		Hex Wash. Hd. Tap Scr 5/16-18 x .7" Lg.	28	710-0323		Truss Mach. Scr. 5/16-18 x .75" Lg.
7	736-0159		Fl-Wash. .344" I.D.	29	710-1012		Rib Neck Bolt 5/16-24 x .75" Lg.
8	722-0160		Bushing	30	738-0435		Running Board Rod
9	732-0588		Compression Spring	31	16922		Running Board—R.H.
10	17702		Seat Pivot Brkt. Support—R.H.		16921		Running Board—L.H.
11	710-0726		Hex Wash. Hd. AB-Tap Scr. 5/16 x .75" Lg.	32	712-0123		Hex Nut 5/16-24 Thd.
12	710-0227		Hex Wash. Hd. AB-Tap Scr. #8 x .5" Lg.	33	726-0139		Speed Nut #10Z
14	725-1303		Spring Switch	34	17360		R.H. Side Frame
15	726-0279		Insulator Plate	35	17361A		L.H. Side Frame
16	738-0155		Shld. Bolt .437" Dia. x .162"	36	17359A		Lower Frame
17	17701		Seat Pivot Brkt. Support—L.H.	37	731-1052		Rubber Foot Pad (Optional)
18	16848B		Seat Plate	38	757-0345		Seat Ass'y. (8-7/8" High)
19	710-0351		Truss Mach. B-Tap Scr. #10 x .5" Lg.		757-0338		Seat Ass'y. (10-5/8" High)
20	731-0405		Snap Bushing		757-0350		Seat Ass'y. (14-1/4" High)
22	—		Shift Cover (Refer to Style Sheet)	39	15607D		Seat Pivot Bracket
23	736-0329		L-Wash. 1/4" I.D.*	40	710-0623		Hex Tap Scr. 3/8-16 x .75" Lg.
24	712-0287		Hex Nut 1/4-20	41	831-0823A		Throttle Control Box Ass'y.
25	710-0118		Hex Bolt 5/16-18 x .75" Lg.	42	746-0634		Throttle Control Wire 35" Lg.
				43	17239A		Seat Lift Bracket
				44	725-1439		Seat Spring Switch
				45	726-0278		Insulator Boss Plate
				46	726-0222		Insulator Nut Plate

**REPLACEMENT PARTS • P.O. BOX 360900 • CLEVELAND, OHIO 44136**